

ἈΤΛΑΣ ΟΥΡΑΝΙΟΣ,
The COELESTIAL ATLAS;
OR, A NEW

E P H E M E R I S
For the YEAR of our LORD 1797.

Being the First after

BISSEXTILE, or LEAP-YEAR.

Wherein are contained

The Heliocentrick and Geocentrick Places of the Planets,
the ECLIPSES of the Luminaries, and other remarkable PHENO-
MENA that will happen this Year.

Carefully computed

From the genuine TABLES of Dr. EDWARD HALLEY,
those of Professor MAYER, and other the latest and most correct
ASTRONOMICAL TABLES.

ALSO

A Complete ALMANACK, containing the FEASTS and FASTS
of the Church of ENGLAND; the Times of the LUNATIONS;
the Rising and Setting of the Sun, Moon, and Planets, &c.

Adapted to the

Meridian and Latitude of the Royal Observatory of
GREENWICH.

To which are added

Several useful TABLES: As, a TABLE of the Sun's
semi-diurnal Arcs, by which the Times of the Sun's Rising and
Setting may be known by Inspection, on every Day in the Year
in any Part of GREAT-BRITAIN or IRELAND; a TIDE-TABLE
and a very correct one of the Eclipses of JUPITER's first Sat-
ellite; a TABLE of the Sun's Right-Ascension; various exact TABLES
of the most remarkable fixed Stars, corrected from Mr. FLAMSTEED's
Catalogue; and, lastly, a correct TABLE of Latitudes and Longi-
tudes of the most remarkable Places in the World.

By ROBERT WHITE,
Teacher of the Mathematicks.

Ὁς ἐγὰρ διηγεῖται νόμους οὐρανίου

The FORTY-EIGHTH IMPRESSION.

L O N D O N :

Printed for the Company of STATIONERS; and sold
by ROBERT HORSFIELD, at their Hall, in Ludgate-street.

[Price ONE SHILLING stitched.]

Chronological Notes for the Year 1797.

Golden Number	- - 12	Septuagesima Sund.	Feb. 12
Cycle of the Sun	- - 14	Shrove Sunday	Feb. 26
The Epact	- - 1	Easter Day	Apr. 16
Dominical Letter	- A	Whit Sunday	June 4
Number of Direction	- 26	Trinity Sunday	June 11
Roman Indiction	- - 15	Advent Sunday	Dec. 3

Astronomical CHARACTERS explained.

♈ Aries	♋ Cancer	♎ Libra	♏ Capricorn
♉ Taurus	♌ Leo	♍ Scorpio	♐ Aquarius
♊ Gemini	♍ Virgo	♐ Sagittary	♑ Pisces
♄ Saturn	☉ Sol (the Sun)	☾ Luna (the Moon)	♃ Herschel,
♃ Jupiter	♀ Venus	♊ Moon's N. Node	the New or
♂ Mars	☿ Mercury	♋ her S. Node	Georgian Planet.
♌ Conjunction when Planets are in the same Sign, Deg. Min. &c.			
* Sextile when 2 Signs dist.		Δ Trine when 4 Signs dist.	
□ Quartile when 3 Signs dist.		♌ Opposition when 6 Signs dist.	

Of the Four Quarters of the YEAR 1797.

	d	h	m
THE Spring Quarter begins	March 20	2	37 morn.
The Summer Quarter begins	June 21	1	31 morn.
The Autumnal Quarter begins	Sept. 22	2	14 aftern.
The Winter Quarter begins	Dec. 21	6	53 morn.

THE beautiful Planet VENUS will be a Morning Star till May the 29th; and after that Time she will be an Evening Star to the Year's End.

JUPITER will be an Evening Star till March the 15th; then a Morning Star till the 7th Day of October, at which Time he becomes an Evening Star, and so continues to the Year's End.

The NAMES of the Learned JUDGES of the LAW.

I. Right Hon. Alexander Wedderburne Lord Loughborough, Lord High Chancellor of Great Britain.

Right Honourable Sir Richard Pepper Arden, Knt. Master of the Rolls.

II. In the } Right Hon. Lord Kenyon, L. C. J. Sir W. H. Ashhurst, Knt.
K. Bench. } Sir Soulden Lawrence, Knt. Sir Nash Grose, Knt.

III. In the } Sir James Eyre, Knt. L. C. J. Sir Giles Rooke, Knt.
C. Pleas. } John Heath, Esq. Sir Francis Buller, Bart.

IV. In the } Sir Arch. Macdonald, Kt. L. C. B. Sir Beaumont Hotham, Kt.
Exchequer } Sir Richard Perryn, Knt. Sir Alex. Thompson, Knt.

Sir John Scott, Knt. Attor. General; Sir John Mitford, Knt. Solic. Gen.

A TABLE of TERMS and Returns for the Year 1797.

Hilary Term begins Jan. 23, ends Feb. 13.

Returns or Effoign-days.		Exc.	Ret.	Ap.	W. D.
In eight Days of St. Hilary,	Jan. 20	21	22	23	Monday
In fifteen Days of St. Hilary	27	28	29	30	Monday
On the Mor. of the Purif. of the Bl. V. M.	Feb. 3	4	5	6	Monday
In eight Days of the Purif. of the Bl. V. M.	9	10	11	13	Monday

Easter Term begins May 3, ends May 29.

In fifteen Days of Easter	April 30	M1	2	3	Wedn.
From Easter Day in three Weeks	May 7	8	9	10	Wedn.
From Easter Day in one Month	14	15	16	17	Wedn.
From Easter Day in five Weeks	21	22	23	24	Wedn.
On the Mor. of the Ascension of the Lord	26	27	28	29	Monday

Trinity Term begins June 16, ends July 5.

On the Morrow of the Holy Trinity,	June 12	13	14	16	Friday.
In eight Days of the Holy Trinity,	18	19	20	21	Wedn.
In fifteen Days of the Holy Trinity,	25	26	27	28	Wedn.
From the Day of the Holy Trin in 3 Weeks	2	3	4	5	Wedn.

Michaelmas Term begins Nov. 6, ends Nov. 28.

On the Morrow of All Souls	Nov. 3	4	5	6	Monday
On the Morrow of St. Martin	12	13	14	15	Wednes.
In eight Days of St. Martin	18	19	20	21	Tuesday
In fifteen Days of St. Martin	25	26	27	28	Tuesday

N. B. No Sittings in Westminster-Hall on the Second of February, Ascension-day, and Midsummer-day.

The Exchequer opens eight Days before any Term begins, except Trinity, before which it opens but four Days.

Note, The first and last Days of every Term, are the first and last Days of Appearance.

BIRTH-DAYS of the ROYAL FAMILY.

KING GEORGE III. June 4, 1738	Prince Aug. Fred. Jan. 27, 1773
Prince of Wales, Aug. 12, 1762	Prince Adolph. Fred. Feb. 24, 1774
Duke of York, August 16, 1763	Princess Mary, April 25, 1776
Duke of Clarence, Aug. 21, 1765	Princess Sophia, Nov. 3, 1777
Princess Royal, Septem. 29, 1766	Princess Amelia, Aug. 7, 1783
Prince Edward, Nov. 2, 1767	Queen Charlotte, May 19, 1744
Prs. Augusta Sophia, Nov. 8, 1768	Prs. Augusta of Brun. Aug. 11, 1737
Prs. Elizabeth, May 22, 1770	Duke of Gloucester, Nov. 25, 1743
Prince Ernest Augustus, June 5, 1771	

SOVEREIGNS of EUROPE, their Accession, &c.

Kingdoms, &c.	To whom subject.	When born.	Began to reign.
England, &c.	George III.	June 4, 1738	Oct. 25, 1760
France	Catharine II.	May 2, 1729	July 9, 1762
Russia	Charles IV.	Nov. 11, 1748	Dec. , 1788
Spain	Mary	Dec. 7, 1734	Feb. 24, 1777
Portugal	Frederic IV.	Sept. 25, 1744	Aug. 17, 1786
Prussia	Christian VII.	Jan. 29, 1749	Jan. 14, 1766
Denmark & Norway	Gustavus IV.	Nov. 1, 1778	Mar. 29, 1792
Sweden	Francis II.	Feb. 12, 1767	Mar. 1, 1792
Germany	Stanislaus III.	Jan. 17, 1732	Nov. 25, 1764
Poland	William V.	March 8, 1748	Oct. 11, 1751
Holland	Pius VI.	Dec. 27, 1717	Feb. 18, 1775
Papedom	Victor	June 26, 1726	Mar. 20, 1779
Sardinia	Selim III.	July 17, 1761	April 7, 1789
Ottoman Empire			

The FULL WEIGHT of the Coins, with the LEAST WEIGHT allowed to pass of the Gold Coin.

Wt. allowed.	Full Wt.		Full Wt.
GOLD. dwt. gr.	dwt. gr.	SILVER.	dwt. gr.
Guinea, - - 5 8	5 9 $\frac{39}{80}$	A Crown, - -	19 8 $\frac{16}{11}$
Half Guinea, - 2 16	2 16 $\frac{64}{80}$	Half Crown, -	9 16 $\frac{8}{11}$
Quarter Guinea, 1 8	1 8 $\frac{32}{80}$	Shilling, - -	3 20 $\frac{16}{11}$
		Six Pence, - -	1 22 $\frac{14}{11}$

According to the above proportions it appears, that the value of a lb. of silver is 62 s. or 3 l. 2 s. and of a lb. of gold is 44 $\frac{1}{2}$ guineas, or 46 l. 14 s. 6 d. Also that the oz. of silver is 5 s. 2 d. and the oz. of gold 3 l. 17 s. 10 $\frac{1}{2}$ d. So that the value of the standard gold is 15 times that of the silver, and 1-14th more.

A TABLE of the **KINGS** and **QUEENS** of **ENGLAND**
since the **CONQUEST**.

Kings and Queens	Born A.D.	Began their Reign	Reigned Y. M. D.	Y. %	Rem. Deaths and Dethroned	Where buried
Will. Conq.	1027	1066 Oct. 14	20 10 26	60	Burst by Leap.	Caen, Norm
Will. Rufus	1057	1087 Sept. 9	12 10 24	43	Slain acciden- tally.	Winchester
Henry I.	1068	1100 Aug. 2	35 3 29	77		Reading
Stephen	1105	1135 Dec. 1	18 10 24	49		Feverham
Henry II.	1133	1154 Oct. 25	34 8 11	55		Fonteveraud
Richard I.	1156	1189 July 6	9 9 0	43	Slain with an Arrow.	Fonteveraud
John	1165	1199 April 6	17 6 13	50		Worcester
Henry III.	1207	1216 Oct. 19	56 0 28	65		Westminster
Edward I.	1239	1272 Nov. 16	34 7 21	67		Westminster
Edward II.	1284	1307 July 7	19 6 18	43		Gloucester
Edward III.	1312	1327 Jan. 25	50 4 27	65		Westminster
Richard II.	1366	1377 June 21	22 3 8	33	Dep. & murd.	Westminster
Henry IV.	1367	1399 Sept. 29	13 5 20	46		Canterbury
Henry V.	1389	1413 Mar. 20	9 5 11	33		Westminster
Henry VI.	1421	1422 Aug. 31	38 6 4	49	Dep. & murd.	Windfor
Edward IV.	1442	1461 Mar. 4	22 1 5	41		Windfor
Edward V.	1471	1483 April 9	0 2 15	12	Murder'd.	Not known
Richard III.	1443	1483 June 22	2 2 0	42	Slain in Battle.	Leicester
Henry VII.	1456	1485 Aug. 22	23 8 0	52		Westminster
Henry VIII.	1492	1509 April 22	37 9 6	55		Windfor
Edward VI.	1537	1547 Jan. 28	6 5 8	15		Westminster
Mary I.	1516	1553 July 6	5 4 11	42		Westminster
Elizabeth	1533	1558 Nov. 17	44 4 7	69		Westminster
James I.	1566	1603 Mar. 24	22 0 3	58		Westminster
Charles I.	1600	1625 Mar. 27	23 10 3	48		Windfor
Charles II.	1630	1649 Jan. 30	36 0 7	54		Westminster
James II.	1633	1685 Feb. 6	4 0 7	67	Abdicated.	St. Germain
Mary II.	1662	1689 Feb. 13	5 10 15	32		Westminster
William III.	1650	1689 Feb. 13	13 0 23	52		Westminster
Anne	1665	1702 Mar. 8	12 4 24	49		Westminster
George I.	1660	1714 Aug. 1	12 10 10	67		Hanover
George II.	1683	1727 June 11	33 4 14	77		Westminster
George III.	1738	1760 Oct. 25	Crowned Sept. 22, 1761.			

Above you view the Rise and Fall of Kings,
Whose Fate sometimes a useful Lesson brings.
Well if all Men could profit from the past!
Each know his Duty, each excel the last,
And justly execute his stated Task.

A TABLE of the most Reverend, Right Reverend, and Reverend, the ARCHBISHOPS, BISHOPS and DEANS, exercising Ecclesiastical Jurisdiction, 1797.

BISHOPS.	Sees.	Date.	Succeeded.	DEANS.
Dr. John Moore	Bangor	1775	Ewer deceased	
Arch-Bishop	Canterb. A. B.	1783	Cornwallis dec.	Dr. Cornwall
Dr. Will. Markham	Chester	1771	Keene transl.	
Arch-Bishop	York A. B.	1777	Drummond de.	Dr. J. Fountayne
Dr. Beilby Porteus	Chester	1776	Markham tran.	
	London	1787	Lowth deceas.	Bishop Pretymann
	Landaff	1769	Shipley transl.	
Hon. Dr. S. Barrington	Salisbury	1782	Hume dec.	
	Durham	1791	Thurlow dec.	Bishop Cornwallis
	Litch & Cov.	1771	Egerton transl.	
Hon. Dr. B. North	Worcester	1774	Johnson deceas.	
	Winchester	1781	Thomas deceas.	Dr. Newton Ogle
Sir W. Ashburnham	Chichester	1754	Mawson transl.	Mr. Combe Miller
Dr. Charles Moss	St. David's	1766	Lowth transl.	
	Bath & Wells	1774	Willes decease	Ld. Fr. Seymour
	St. David's	1774	Moss transl.	
H. Dr. James Yorke	Gloucester	1779	Warburton dec.	
	Ely	1781	Keene deceased	Dr. W. Cooke
Dr. Richard Hurd	Litch. & Cov.	1775	B. North tr.	
	Worcester	1781	B. North tr.	Dr. Onflow
Dr. John Butler	Oxford	1777	Lowth transl.	
	Hereford	1788	Harley deceas.	Dr. N. Wetherell
Dr. John Warren	St. David's	1779	Yorke transl.	
	Bangor	1783	Moore transl.	Dr. Tho. Lloyd
Dr. J. Cornwallis	Litch. & Cov.	1781	Hurd transl.	Dr. Bapt. Proby
	Bristol	1782	Newton dec.	
Dr. Lewis Bagot	Norwich	1783	Yonge dec.	
	St. Asaph	1790	Hallifax dec.	Mr. W. D. Shipley
Dr. Richard Watson	Landaff	1782	Barrington tr.	Dr. R. Price, Pr.
Dr. Edward Smalwell	St. David's	1783	Warren transl.	
	Oxford	1788	Butler transl.	Dr. Cyril Jackson
Dr. G. Pretymann	Lincoln	1787	Thurlow tran.	Sir R. Kaye, Bt.
Dr. John Douglas	Carlisle	1787	Law dec.	
	Salisbury	1791	Barrington tra.	Dr. John Ekins
Dr. William Cleaver	Chester	1788	Porteus tran.	Dr. G. Cotton
Dr. Samuel Horsley	St. David's	1788	Smalwell tr.	
	Rocheſter	1793	Thomas dec.	Dr. T. Dampier
Dr. Richard Beadon	Gloucester	1789	Hallifax tran.	Dr. Josiah Tucker
Dr. E. V. Vernon	Carlisle	1791	Douglas transl.	Dr. Isaac Milner
Dr. Charles Sutton	Norwich	1792	Horne decea.	Dr. John Hallam
Dr. Wm. Buler	Exeter	1792	Rofs dec.	Dr. C. Harward
Hon. Dr. Wm. Stuart	St. David's	1793	Horsley transl.	Mr. Wollaston, P.
Dr. Spencer Madan	Bristol	1792	Bagot transl.	
	Peterborough	1794	Hinchliffe dec.	Dr. Peter Peckard
Dr. Regi. Courtenay	Bristol	1794	Madan transl.	Dr. Joseph Turner
	Westminster	1793	Thomas dec.	Bishop Horsley
	Windſor	1788		Bishop Sutton

In the course of this year there will happen four eclipses, two of the sun, and two of the moon; but only one of each of them will be visible.

I. *June 9*, the Moon is totally eclipsed, but invisible here.

Beginning of the eclipse	9h	41m	morning
Beginning of total darkness	10	58	
Ecliptic opposition	11	26	
Middle of the eclipse	11	30	
End of total darkness	0	12	afternoon
End of the eclipse	1	19	

Digits eclipsed $14^{\circ} 2'$ from north side of the earth's shadow.

II. *June 24*, the Sun is eclipsed, and visible here.

Beginning of the eclipse	4h	44m	afternoon
Visible conjunction	5	28	
Middle	5	29	
End of the eclipse	6	12	

Digits eclipsed $4^{\circ} 20'$, on the sun's north limb.—The moon makes the first impression on the sun's limb at $90^{\circ} 30'$ from the sun's vertex on the right hand,

III. *December 4*, the Moon is totally eclipsed, and visible here.

Beginning of the eclipse	2h	37m	morning
Beginning of total darkness	3	36	
Ecliptic opposition	4	26	
Middle of the eclipse	4	27	
End of total darkness	5	17	
End of the eclipse	6	17	

Digits eclipsed $20^{\circ} 35'$ from south side of the earth's shadow.

IV. *December 18*, the Sun is eclipsed, but invisible here. The conjunction is 6h 39m in the morning, in longitude $81^{\circ} 26' 56''$, the moon's latitude being $1^{\circ} 13' 30''$ south.

Obliquity of the Ecliptic.	1797.	Equation of Equinoctial Points.
$23^{\circ} 27' 55''.5$	- January 1,	- $18''.0$
$23^{\circ} 27' 56''.2$	- April 1,	- $18''.0$
$23^{\circ} 27' 56''.9$	- July 1,	- $17''.8$
$23^{\circ} 27' 57''.6$	- October 1,	- $17''.5$
$23^{\circ} 27' 58''.2$	- Decemb. 31,	- $17''.1$

The LUNATIONS.

First quarter the 6th day, at 35 minutes past 7 morning.
 Full Moon the 13th day, at 0 minutes past 1 morning.
 Last quarter the 19th day, at 49 minutes past 8 night.
 New Moon the 28th day, at 36 minutes past 1 morning.

M	Sundays & other remark. days	☉ rises	☉ sets	☉'s declin.	☾'s declin.	☾ rises & sets	☾ south	Clock bef. ☉	
1	S. Chr. Chr. [cumbion]	8 4	3 56	22 s 57	19 s 23	7 a 3	2 a 36	4' 23"	
2		8 4	3 56	22 52	16 3	8 10	3 21	4 51	
3		8 3	3 57	22 45	12 1	9 19	4 5	5 18	
4		8 3	3 58	22 39	7 26	10 29	4 48	5 45	
5	Old Chri. Day	8 2	3 58	22 32	2 27	11 42	5 32	6 12	
6	Epiphany	Tw. day	3 59	22 25	2 n 47	morn	6 17	6 38	
7	r S. aft. Epiph.	8 0	4 0	22 17	8 2	0 56	7 4	7 4	
8	Lucian	4 1	22 9	13 5	2 13	7 55	7 29		
9	Plow Monday	7 58	4 2	22 0	17 34	3 82	8 50	7 54	
10		7 57	4 3	21 51	21 7	4 56	9 50	8 18	
11		7 56	4 4	21 41	23 18	6 17	10 54	8 41	
12	Old New Yeard.	7 55	4 5	21 31	23 49	7 28	11 58	9 4	
13	Hila. Cam. T. b.	7 54	4 6	21 21	22 33	☾ rises morn		9 26	
14	Oxf. Term beg.	7 52	4 8	21 10	19 39	6 a 3	1 1	9 47	
15	r S. aft. Epiph.	7 51	4 9	20 59	15 31	7 31	2 1	10 8	
16		7 50	4 10	20 47	10 33	8 52	2 57	10 28	
17	Old 12th Day.	7 49	4 11	20 35	5 11	10 11	3 48	10 48	
18	☉ Chr. p. d. k.	7 47	4 13	20 23	0 s 14	11 26	4 36	11 6	
19	[Prisca	7 46	4 14	20 10	5 29	morn	5 21	11 24	
20	Fabian	7 45	4 15	19 57	10 21	0 39	6 6	11 42	
21	Agnes	7 43	4 17	19 43	14 40	1 50	6 50	11 58	
22	r Sun. a. Epiph.	Vince.	4 18	19 30	18 17	3 0	7 35	12 14	
23	Hil. Term beg.	7 40	4 20	19 15	21 6	4 7	8 22	12 29	
24	Cont. of St. Paul	7 39	4 21	19 2	22 58	5 11	9 10	12 43	
25		7 37	4 23	18 46	23 49	6 8	9 59	12 57	
26		7 36	4 24	18 30	23 36	6 57	10 48	13 9	
27		7 34	4 26	18 15	22 19	7 38	11 36	13 21	
28	4 Sun. a. Epip.	7 33	4 27	17 59	20 1	☾ sets	0 a 24	13 32	
29	K. Cha. l. mar.	7 31	4 29	17 43	16 51	5 a 54	1 10	13 42	
30		7 29	4 31	17 26	12 56	7 3	1 55	13 51	
31		7 28	4 32	17 9	8 26	8 13	2 39	14 0	
Days	Day increat.	Length of Day.	Helioc. long. ♀	Helioc. long. ♀	Helioc. long. ♂	Helioc. long. ♂	Helioc. long. ♀	Helioc. long. ♀	h sets
1	0 8	7 52	24 11 59	19 20	27 42	11 41	13 7	24 2	6 m 48
7	0 16	8 0	25 13	19 53	18 13	17 48	22 48	13 52	6 21
13	0 28	8 12	25 26	20 26	4 48	23 55	2 m 27	6 46	5 54
19	0 44	8 28	25 39	20 59	8 10	0 12	4 4	4 5	5 27
25	1 2	8 46	25 52	21 32	11 34	6 7	21 39	6 46	5 0

Day lig.	Day lig.	Day lig.	Pl. D's	h's	u's	δ's	♀'s	♂'s
begins	ends	twilig.	node	latitude	latitude	latitude	latitude	latitude
1	5 59	6 1	2 5	105 12	1 s 16	1 s 8	0 s 37	1 n 45
7	5 56	6 4	2 4	0 53	1 15	1 8	0 30	1 31
13	5 52	6 8	2 2	0 34	1 14	1 7	0 23	1 16
19	5 46	6 14	2 0	0 15	1 13	1 7	0 11	1 0
25	5 39	6 21	1 58	29 11 56	1 12	1 6	0 1	0 42
	0's longitude	u's long.	u's latitude	h's long.	u's long.	δ's long.	♀'s long.	♂'s long.
2	11 40 55	16 50	3 s 45	22 11 58	9 40	18 36	5 58	15 20
3	12 42 7	28 50	4 27	22 54	9 51	19 40	7 12	17 8
4	13 43 19	11 0	4 57	22 50	10 2	20 3	8 25	18 46
5	14 44 30	23 22	5 14	22 46	10 13	20 4	9 39	20 25
6	15 45 41	6 7	5 16	22 42	10 25	21 30	10 53	22 4
7	16 46 51	19 0	5 3	22 38	10 36	22 14	12 6	23 4
8	17 48 1	2 8 22	4 33	22 34	10 47	22 57	13 20	25 24
9	18 49 10	16 10	3 46	22 30	10 59	23 41	14 34	27 4
10	19 50 18	0 11 23	2 45	22 25	11 10	24 24	15 47	28 44
11	20 51 26	15 1	1 31	22 21	11 21	25 8	17 1	0 25
12	21 52 33	29 59	0 10	22 16	11 33	25 51	18 15	2 5
13	22 53 40	15 11	1 n 14	22 12	11 45	26 35	19 28	3 46
14	23 54 46	0 26	2 32	22 8	11 57	27 18	20 42	5 27
15	24 55 51	15 35	3 39	22 4	12 9	28 1	21 56	7 7
16	25 56 56	0 29	4 30	22 0	12 22	28 45	23 10	8 47
17	26 58 0	14 59	5 2	21 57	12 34	29 28	24 23	10 28
18	27 59 4	29 2	5 14	21 53	12 46	0 11	25 38	12 8
19	29 0 8	12 36	5 9	21 50	12 50	0 55	26 52	13 45
20	0 1 11	25 42	4 47	21 46	13 11	1 38	28 6	15 20
21	1 2 14	8 24	4 12	21 43	13 23	2 21	29 20	16 54
22	2 3 16	20 45	3 25	21 40	13 36	3 4	0 34	18 27
23	3 4 18	2 51	2 31	21 37	13 49	3 48	1 48	19 58
24	4 5 19	14 47	1 32	21 34	14 2	4 31	3 1	21 25
25	5 6 19	26 35	0 27	21 31	14 15	5 14	4 16	22 48
26	6 7 19	8 22	0 s 37	21 29	14 28	5 57	5 30	24 7
27	7 8 18	20 9	1 40	21 26	14 41	6 40	6 44	25 21
28	8 9 16	1 59	2 3	21 23	14 54	7 24	7 58	26 29
29	9 10 13	13 55	3 31	21 20	15 7	8 7	9 12	27 31
30	10 11 9	25 58	4 13	21 18	15 20	8 50	10 26	28 25
31	11 12 3	8 9	4 45	21 15	15 33	9 33	11 40	29 11
32	12 12 56	20 29	5 40	21 13	15 46	10 16	12 54	30 50
	u's fets	δ's fets	♀'s fets	♂'s fets	h's declin.	u's declin.	δ's declin.	♀'s declin.
1	9 a 15	10 a 6	5 m 7	4 a 1	22 n 1	9 s 1	5 s 5	19 s 37
7	8 56	10 5	5 17	4 28	22 1	8 31	3 16	20 55
13	8 37	10 4	5 27	5 0	22 0	8 1	1 26	21 53
19	8 18	10 3	5 37	5 34	22 0	7 31	0 n 23	22 28
25	7 59	10 3	5 47	6 4	22 0	7 1	2 12	23 30
	u's fets	δ's fets	♀'s fets	♂'s fets	h's declin.	u's declin.	δ's declin.	♀'s declin.
1	9 a 15	10 a 6	5 m 7	4 a 1	22			

The LUNATIONS.

First quarter the 4th day, at 7 minutes past 8 night.
Full Moon the 11th day, at 42 minutes past 11 morning.
Last quarter the 18th day, at 25 minutes past 2 afternoon.
New Moon the 26th day, at 32 minutes past 7 night.

M D	Sundays & other remark. days	☉ rises	☉ sets	☉'s declin	☾'s declin.	☾ rises & sets	☾ south	Clock bef. ☉	
1		7 26	4 34	16 52	3 32	9 a 25	3 a 23	14 8 ⁰	
2	Purif. of Candi.	7 24	4 36	16 34	1 n 36	10 37	4 7	14 14	
3	Blas	7 23	4 37	16 17	6 47	11 52	4 52	14 20	
4		7 21	4 39	15 59	11 46	morn	5 40	14 25	
5	Ag Sun. a. Epip.	Agathia	4 41	15 40	16 18	1 8	6 32	14 30	
6		7 17	4 43	15 22	20 4	2 25	7 28	14 33	
7		7 15	4 45	15 3	22 43	3 47	8 28	14 35	
8		7 14	4 46	14 44	23 53	5 0	9 31	14 37	
9		7 12	4 48	14 21	23 23	6 3	10 34	14 39	
10		7 10	4 50	14 5	21 12	6 52	11 36	14 39	
11		7 8	4 52	13 45	17 33	7 31	morn	14 38	
12	Septuagesima S.	7 6	4 54	13 25	12 40	☾ rises	0 35	14 37	
13	Ter. e. Old Can.	7 4	4 56	13 5	7 26	7 a 41	1 30	14 35	
14	Valentine	7 3	4 57	12 44	1 48	9 0	2 21	14 32	
15		7 1	4 59	12 24	3 44	10 17	3 9	14 28	
16		6 59	5 1	12 3	8 55	11 32	3 56	14 24	
17		6 57	5 3	11 42	13 33	morn	4 42	14 19	
18		6 55	5 5	11 20	17 29	0 45	5 29	14 14	
19	Sexagesim. Sun.	6 53	5 7	10 59	20 34	1 56	6 16	14 7	
20		6 51	5 9	10 37	22 43	3 1	7 4	14 0	
21		6 49	5 11	10 16	23 50	4 1	7 53	13 53	
22		6 47	5 13	9 54	23 53	4 53	8 42	13 45	
23	Cam. Te. d. m.	6 45	5 15	9 32	22 51	5 37	9 31	13 36	
24	St. Matthia. Pr.	6 43	5 17	9 9	20 48	6 12	10 20	13 27	
25	[A.F.b.]	6 41	5 19	8 47	17 48	6 41	11 7	13 17	
26	Quinq. Shro. S.	6 39	5 21	8 25	14 0	☾ sets	11 53	13 6	
27		6 38	5 22	8 2	9 33	6 a 3	0 a 38	12 55	
28	Shrove Tuesday	6 36	5 24	7 39	4 38	7 15	1 22	12 44	
Days	Day increas.	Length of day	Helioc. long. ♀	Helioc. long. ♀	Helioc. long. ♂	Helioc. long. ☉	Helioc. long. ♀	Helioc. long. ♂	h sets
1	1 24	9 8	26 11	8 22	10 15	31 13	14 2	48 19	11 52
7	1 46	9 30	26 24	22 43	18 52	19 18	12 21	26 41	4 5
13	2 8	9 52	26 35	23 16	21 10	25 22	11 52	28 56	3 41
19	2 30	10 14	26 40	23 40	25 26	1 25	1 22	25 37	3 17
25	2 54	10 38	27 2	24 22	28 41	7 27	10 51	17 52	2 53

1797.

February.

II

Day	Day lig. begins	Day lig. ends	Durat. twilig.	Pl. D's node	h's latitude	u's latitude	♂'s latitude	♀'s latitude	♂'s latitude
1	5 30	6 30	1 56	29 II 33	1 s 10	1 s 5	0 s 4	0 n 22	1 n 26
7	5 22	6 38	1 53	29 14	1 9	1 5	0 n 1	0 4	3 1
13	5 13	6 47	1 51	28 55	1 8	1 5	0 6	0 s 12	3 44
19	5 2	6 59	1 52	28 36	1 7	1 4	0 11	0 28	3 9
25	4 50	7 10	1 52	28 17	1 6	1 4	0 16	0 43	1 54
Day	☉'s longitude		☽'s long.	☽'s latitude	h's long.	u's long.	♂'s long.	♀'s long.	♂'s long.
1	13 13 48	3 V 1	5 s 9	21 II 11	15 X 59	10 V 59	14 h 9	0 X 18	
2	14 14 38	15 45	5 59	21 9	16 12	11 42	15 23	0 42	
3	15 15 27	28 45	4 33	21 7	16 26	12 25	16 37	0 R 48	
4	16 16 14	12 X 2	3 53	21 5	16 40	13 8	17 52	0 39	
A	17 16 50	25 30	2 58	21 4	16 53	13 51	19 6	0 22	
6	18 17 43	9 II 36	1 52	21 2	17 7	14 34	20 20	29 57	
7	19 18 25	23 55	0 37	21 1	17 21	15 16	21 35	29 23	
8	20 19 6	8 III 33	0 n 42	21 0	17 34	15 59	22 49	28 40	
9	21 19 45	23 27	1 59	20 58	17 48	16 42	24 3	27 48	
10	22 20 22	8 Ω 20	3 9	20 57	18 2	17 24	25 17	26 46	
11	23 20 57	23 32	4 5	20 56	18 16	18 7	26 32	25 42	
A	24 21 31	8 III 25	4 44	20 56	18 30	18 50	27 46	24 35	
13	25 22 4	23 0	5 4	20 55	18 44	19 32	29 0	23 26	
14	26 22 35	7 Δ 10	5 4	20 55	18 58	20 15	0 III 14	22 18	
15	27 23 5	20 52	4 46	20 54	19 12	20 58	1 20	21 12	
16	28 23 33	4 m 6	4 14	20 54	19 26	21 40	2 43	20 9	
17	29 24 0	16 53	3 20	20 53	19 40	22 23	3 57	19 11	
18	X 0 24 26	29 17	2 36	20 53	19 54	23 6	5 12	18 19	
A	1 24 50	11 f 24	1 37	20 52	20 8	23 48	6 26	17 34	
20	2 25 13	23 18	0 35	20 D 52	20 22	24 31	7 40	16 56	
21	3 25 36	5 h 6	0 s 38	20 52	20 36	25 13	8 55	16 25	
22	4 25 56	16 52	1 30	20 52	20 50	25 55	10 9	16 2	
23	5 26 15	28 40	2 28	20 53	21 5	26 38	11 23	15 46	
24	6 26 32	10 III 35	3 19	20 53	21 19	27 20	12 38	15 37	
25	7 26 47	22 39	4 3	20 54	21 33	28 2	13 52	15 D 34	
A	8 27 1	4 X 53	4 35	20 54	21 48	28 44	15 6	15 37	
27	9 27 13	17 19	4 55	20 55	22 2	29 26	16 20	15 47	
28	10 27 23	29 56	5 2	20 56	22 16	0 X 8	17 34	16 4	
Day	u's fets	♂'s fets	♀'s rites	♂'s rites	h's declin.	u's declin.	♂'s declin.	♀'s declin.	♂'s declin.
1	7 a 37	0 a 2	6 m 0	7 m 40	22 n 0	6 s 32	4 n 17	22 s 21	10 s 2
7	7 22 10	3	5 59	7 17	22 1	5 59	6 2	21 40	8 32
13	7 17 10	4	5 58	6 29	22 2	5 26	7 45	20 35	10 12
19	6 52 10	6	5 58	5 58	22 3	4 53	9 25	19 8	12 35
25	6 37 10	7	5 57	5 42	22 4	4 20	11 2	17 22	14 22

The LUNATIONS.

First quarter the 6th day, at 45 minutes past 5 morning.

Full Moon the 12th day, at 28 minutes past 10 night.

Last quarter the 20th day, at 59 minutes past 9 morning.

New Moon the 28th day, at 41 minutes past 10 morning.

M	Sundays & other	☉	☾	☉'s	☾'s	Rises	☾	Clock
D	remark. days	rises	sets	declin.	declin.	& sets	South	bef. ☉
1	Am Wednesday	David	5 26	7 s 16	on 33	8 a 28	2 a 6	12 31
2	Chad	6 3	5 28	6 54	5 4	9 43	2 52	12 19
3		6 3	5 30	6 31	10 52	11 1	3 40	12 6
4		6 2	5 32	6 7	15 31	morn	4 30	11 52
5	1 Sun. in Lent	6 26	5 34	5 44	19 26	0 18	5 24	11 38
6		6 24	5 36	5 21	22 20	1 38	6 22	11 24
7	Perpetua	6 22	5 3	4 58	23 54	2 52	7 22	11 9
8	Ember Week	6 20	5 4	4 34	23 56	3 57	8 23	10 54
9		6 18	5 42	4 11	22 22	4 49	9 23	10 38
10		6 16	5 44	3 47	19 17	5 30	10 22	10 22
11		6 14	5 46	3 24	14 59	6 4	11 18	10 6
12	As Sund. in Lent	6 12	5 43	3 0	9 50	Rises	morn	9 49
13	[Gregory]	6 10	5 50	2 37	4 12	6 a 38	0 11	9 34
14		6 8	5 52	2 13	1 s 31	7 58	1 1	9 15
15		6 6	5 54	1 49	7 1	9 16	1 50	8 57
16		6 4	5 56	1 26	12 2	10 31	2 38	8 42
17	St. Patrick	6 2	5 58	1 2	16 22	11 44	3 25	8 22
18	Edw. K. of W.S.	6 0	6 0	0 38	19 52	morn	4 13	8 4
19	3 Sund. in Lent	5 58	6 2	0 14	22 23	0 55	5 2	7 45
20		5 56	6 4	on 9	23 51	1 50	5 52	7 27
21	Benedict	5 54	6 6	0 33	24 14	2 55	6 42	7 9
22		5 52	6 8	0 57	23 31	3 42	7 31	6 51
23		5 50	6 10	1 20	21 44	4 20	8 20	6 32
24		5 48	6 12	1 44	19 0	4 51	9 8	6 14
25	Ann. or Lady D.	5 46	6 14	2	15 23	5 16	9 55	5 55
26	4 or Mid. June	5 44	6 16	2 31	11 3	5 36	10 40	5 37
27		5 42	6 18	2 54	6 11	5 54	11 25	5 18
28		5 40	6 20	3 18	0 56	D sets	0 a 11	5 0
29		5 38	6 22	3 41	4 n 27	7 a 32	0 56	4 41
30		5 36	6 24	4 4	9 41	8 56	1 44	4 23
31		5 34	6 26	4 28	14 38	10 15	2 34	4 4
Days	Day	Length	Helio.	Helio.	Helio.	Helio.	Helio.	Helio.
	increas.	of day	long. ♀	long. ♂	long. ♂	long. ⊖	long. ♀	long. ♂
1	3 8	10 52	27 11 11	24 23	0 11 49	11 28	17 10	on 159
7	3 32	11 16	27 25	25 16	4 0	17 28	26 39	18 57
13	3 56	11 40	27 38	25 49	7 9	23 26	6 8	5 46
19	4 20	12 4	27 52	26 22	10 16	29 24	15 37	22 15
25	4 44	12 28	28 5	26 55	13 21	32 20	25 6	24 10

1797.

March.

13

Day lig.	Day lig.	Durat.	Pl. D's	h's	u's	δ's	♀'s	♂'s
begins	ends	twilig.	node	latitude	latitude	latitude	latitude	latitude
1 4 43	7 18	1 52	28 II 4	1 s 4	1 s 4	0 n 19	0 s 52	1 n 1
7 4 30	7 31	1 53	27 45	1 3	1 4	0 23	1 3	0 s 12
13 4 17	7 44	1 54	27 26	1 2	1 4	0 27	1 13	1 9
19 4 4	7 57	1 55	27 7	1 1	1 4	0 31	1 21	1 51
25 3 50	8 11	1 57	26 48	1 0	1 4	0 34	1 26	2 16

☉'s	☽'s	☽'s	h's	u's	δ's	♀'s	♂'s
longitude	long.	latitude	long.	long.	long.	long.	long.
1 11 27 31	12 V 45	4 s 53	20 II 57	22 X 31	0 8 50	18 49	16 26
2 12 27 37	25 46	4 29	20 58	22 45	1 32	20 3	16 50
3 13 27 41	8 58	3 50	20 59	23 0	2 14	21 17	17 21
4 14 27 43	22 22	2 58	21 0	23 14	2 56	22 32	18 0
5 15 27 42	5 II 59	1 55	21 2	23 29	3 38	23 46	18 41

6 16 27 39	19 49	0 44	21 3	23 43	4 20	25 0	19 25
7 17 27 34	3 53	0 n 30	21 5	23 58	5 26	15 10	13
8 18 27 26	18 12	1 44	21 7	24 12	5 44	27 29	14
9 19 27 16	2 41	2 52	21 9	24 27	6 26	28 43	21 58
10 20 27 4	17 19	3 49	21 11	24 4	7 8	29 57	22 54

11 21 26 50	21 0	4 31	21 13	24 56	7 50	1 X 12	23 53
A 22 26 34	16 35	4 55	21 15	25 10	8 32	2 26	24 55
13 23 26 16	0 57	5 02	21 18	25 25	9 13	3 40	26 1
14 24 25 56	15 1	4 47	21 20	25 39	9 55	4 54	27 9
15 25 25 34	28 41	4 17	21 21	25 54	10 36	6 8	28 18

16 26 25 10	11 M 55	3 34	21 25	26 8	11 18	7 23	29 29
17 27 24 44	24 45	2 41	21 28	26 23	11 59	8 37	0 X 43
18 28 24 16	7 12	1 42	21 31	26 37	12 41	9 51	1 59
A 29 23 46	19 22	0 40	21 34	26 52	13 22	11 6	3 16
20 V 0 23 15	1 18	0 s 24	21 37	27 6	14 4	12 20	4 35

21 1 22 42	13 8	1 25	21 40	27 21	14 45	13 34	5 56
22 2 22 8	24 55	2 23	21 44	27 35	15 27	14 48	7 18
23 3 21 32	6 46	3 15	21 47	27 50	16 8	16 3	8 42
24 4 20 54	18 45	3 58	21 51	28 4	16 50	17 17	10 8
25 5 20 14	0 X 56	4 32	21 54	28 19	17 31	18 31	11 36

A 6 19 32	13 21	4 53	21 58	28 33	18 13	19 45	13 5
27 7 18 48	26 1	5 1	22 1	28 48	18 54	20 59	14 35
28 8 18 2	8 V 57	4 53	22 5	29 2	19 35	22 11	16 7
29 9 17 14	22 8	4 30	22 9	29 17	20 16	23 28	17 40
30 10 16 24	5 31	3 51	22 13	29 31	20 57	24 42	19 15
31 11 15 32	10 5	2 50	22 17	30 46	21 38	25 56	20 51

☽'s	☽'s	♀'s	♂'s	h's	u's	δ's	♀'s	♂'s
sets	sets	rises	rises	declin.	declin.	declin.	declin.	declin.
1 6 a 27	10 a 9	5 m 57	5 m 36	22 n 5	3 s 57	12 n 4	16 s 1	14 s 58
7 6 12 10	11 11	5 50	5 31	22 7	3 23	13 35	13 46	14 57
13 5 57 10	13 5	5 42	5 26	22 9	2 49	15 1	11 18	13 56
19 5 42 10	15 5	5 34	5 26	22 11	2 15	16 22	8 39	12 3
25 5 27 10	18 5	5 27	5 22	22 14	1 40	17 37	5 52	9 19

The LUNATIONS.

First quarter the 4th day, at 1 minute past 1 afternoon.
 Full Moon the 11th day, at 43 minutes past 9 morning.
 Last quarter the 19th day, at 39 minutes past 5 morning.
 New Moon the 26th day, at 54 minutes past 10 night.

M D	Sundays & other remark. days	☉ rises	☉ sets	☉'s declin.	☿'s declin.	☿ rises & sets	☿ South	Clock bef. ☉	
1		5 32	6 28	4 n 51	18 n 50	11 a 36	3 a 28	3 46	
A 5	Sund. in Lent	5 30	6 30	5 14	22 2	morn	4 24	3 28	
3	Richard	5 28	6 32	5 37	23 56	0 52	5 23	3 10	
4	St. Ambrose	5 26	6 34	5 59	24 20	2 0	6 23	2 52	
5	Old Lady Day	5 24	6 36	6 22	23 10	2 56	7 23	2 34	
6		5 22	6 38	6 45	20 33	3 40	8 21	2 17	
7	Cam. Term e.	5 20	6 40	7 7	16 39	4 15	9 16	1 59	
8	Oxford T. ends	5 18	6 42	7 30	11 47	4 39	10 0	1 42	
A 6	or Palm Sun.	5 17	6 43	7 52	6 24	5 2	10 59	1 25	
10		5 15	6 45	8 14	0 42	5 29	11 47	1 9	
11		5 13	6 47	8 36	4 s 55	(☿ rises	morn	0 52	
12		5 11	6 49	8 58	10 13	8 a 12	0 35	0 36	
13	Maundy Thurs.	5 9	6 51	9 20	14 55	9 27	1 23	0 21	
14	Good Friday	5 7	6 53	9 41	18 50	10 42	2 12	0 5	
15		5 5	6 55	10 2	21 48	11 45	3 1	oaf. 10	
A	Easter Day	5 3	6 57	10 24	23 42	morn	3 50	0 27	
17	Easter Monday	5 1	6 59	10 45	24 29	0 49	4 40	0 39	
18	Easter Tuesday	4 59	7 1	11 6	24 7	1 35	5 31	0 53	
19	Alphege	4 57	7 3	11 26	22 41	2 22	6 20	1 6	
20		4 56	7 4	11 47	20 15	2 52	7 9	1 19	
21		4 54	7 6	12 7	16 55	3 23	7 56	1 32	
22		4 52	7 8	12 27	12 49	3 43	8 42	1 44	
A	Low S. St. Geo.	4 50	7 10	12 47	8 7	4 4	9 26	1 55	
24	[Ma. b.	4 48	7 12	13 7	2 56	4 21	10 10	2 6	
25	St. Mark. Pres.	4 46	7 14	13 26	2 n 31	4 39	10 55	2 17	
26	Ox. & Ca. T. beg.	4 45	7 15	13 46	7 58	(☿ sets	11 42	2 27	
27		4 43	7 17	14 5	13 11	8 a 4	0 a 33	2 37	
28		4 41	7 19	14 23	17 47	9 28	1 27	2 46	
29		4 39	7 21	14 42	21 26	10 47	2 23	2 55	
A 2	Su. aft. Easter	4 37	7 23	15 0	3 46	11 59	3 22	3 3	
Days	Day increaf.	Length of day	Helioc. long. ♀	Helioc. long. ♀	Helioc. long. ♂	Helioc. long. ☉	Helioc. long. ♀	Helioc. long. ☿	h sets
1	5 12	12 56	28 11 21	27 33	16 11 55	12 15	6 11	0 29	0 m 53
7	5 36	13 20	28 30	28 6	19 57	18 8	15 42	21 12	0 33
13	5 58	13 42	28 48	28 39	22 56	24 1	25 13	15 27	0 13
19	6 22	14 6	29 2	29 12	25 54	29 52	4 46	14 28	11 a 54
25	6 44	14 28	29 15	29 45	28 50	5 m 42	14 19	18 45	11 35

Days	Day lig. begins	Day lig. ends	Durat. twilig.	Pl. D's node	h's latitude	u's latitude	δ's latitude	♀'s latitude	♂'s latitude
1	3 33	8 28	2 0	26 11 26	0 s 58	1 s 5	0 n 38	1 s 25	2 s 25
7	3 18	8 48	2 3	26 7	0 57	1 5	0 41	1 29	2 13
13	3 2	8 50	2 6	25 48	0 56	1 5	0 44	1 27	1 41
19	2 45	9 16	2 13	25 29	0 55	1 6	0 47	1 22	0 56
25	2 26	9 35	2 21	25 10	0 54	1 1	0 49	1 15	0 n 5
Days	☉'s longitude	☽'s long.	☽'s latitude	h's long.	u's long.	δ's long.	♀'s long.	♂'s long.	
1	γ 12 14 38	2 11 48	1 s 5	22 11 21	0 γ 0	22 8 19	27 10	2 10	2 29
7	A 13 13 42	16 38	0 46	22 25	0 14	23 0	28 24	24 7	
13	14 12 43	0 35	0 n 28	22 30	0 25	23 41	29 38	25 48	
19	15 11 41	14 38	1 41	22 34	0 43	24 22	0 γ 52	27 31	
25	16 10 37	28 46	2 48	22 39	0 58	25 3	2 7	29 15	
1	17 9 31	12 59	3 45	22 43	1 12	25 44	3 21	1 γ 0	
7	18 8 22	27 13	4 28	22 48	1 26	26 24	4 35	2 46	
13	19 7 11	11 27	4 55	22 52	1 40	27 5	5 49	4 34	
19	A 20 5 58	25 35	5 3	22 57	1 54	27 46	7 3	6 24	
25	21 4 43	9 33	4 53	23 2	2 8	28 26	8 17	8 15	
1	22 3 26	23 16	4 26	23 7	2 22	29 7	9 31	10 7	
7	23 2 7	6 41	3 45	23 12	2 36	29 48	10 45	12 1	
13	24 0 46	19 46	2 53	23 18	2 50	0 11 28	11 59	13 57	
19	24 59 23	2 30	1 53	23 23	3 4	1 9	13 13	15 54	
25	25 57 58	14 56	0 49	23 29	3 18	1 49	14 27	17 53	
1	A 26 56 31	27 6	0 s 16	23 34	3 32	2 30	15 41	19 53	
7	27 55 3	9 4	1 19	23 40	3 46	3 10	16 55	21 54	
13	28 53 33	20 55	2 19	23 45	4 0	3 51	18 9	23 57	
19	29 52 2	2 45	3 12	23 51	4 14	4 31	19 23	26 2	
25	8 0 50 29	14 37	3 58	23 56	4 28	5 12	20 37	28 8	
1	1 48 55	26 39	4 33	24 2	4 41	5 52	21 51	0 8 14	
7	2 47 19	8 54	4 57	24 8	4 55	6 32	23 5	2 21	
13	A 3 45 42	21 25	5 7	24 14	5 8	7 13	24 10	4 29	
19	4 44 3	4 γ 15	5 2	24 20	5 22	7 53	25 33	6 38	
25	5 42 22	17 25	4 42	24 26	5 35	8 33	26 47	8 47	
1	6 40 40	0 8 54	4 5	24 32	5 49	9 14	28 1	10 56	
7	7 38 56	14 40	3 13	24 38	6 2	9 54	29 15	13 5	
13	8 37 10	28 39	2 0	24 44	6 16	10 34	0 8 29	15 13	
19	9 35 22	12 11 48	0 56	24 50	6 29	11 14	1 43	17 21	
25	A 10 33 33	27 2	0 n 21	24 56	6 43	11 54	2 57	19 28	
Days	u's rites	δ's rites	♀'s rites	♂'s rites	h's declin.	u's declin.	δ's declin.	♀'s declin.	♂'s declin.
1	5 m 17	12 a 21	5 m 18	5 m 16	22 n 17	0 s 50	18 n 50	2 s 29	5 s 12
7	5 4	10 21	5 8	5 11	22 19	0 26 20	2 0 n 28	0 56	
13	4 51	10 21	4 58	5 5	22 21	0 n 52 0	59 3	25 3 n 56	
19	4 38	10 21	4 48	5 0	22 24	0 37 21	50 6	20 9 12	
25	4 25	10 21	4 38	4 52	22 26	1 10 22	2 0	10 14 31	

The LUNATIONS.

First quarter the 3d day, at 48 minutes past 6 afternoon.

Full Moon the 10th day, at 56 minutes past 9 night.

Last quarter the 18th day, at 42 minutes past 11 night.

New Moon the 26th day, at 34 minutes past 8 morning.

M	Sundays & other	☉	☉	☉'s	☾'s	☾ rises	☾	Clock
D	remark. days	rises	sets	declin.	declin.	& sets	South	aft. ☉
1	St. Phil. & Jam.	4 36	7 24	15 n 18	24 n 35	morn	4 a 24	3 10
2		4 34	7 26	15 36	23 47	1 1	5 25	3 17
3	Term b. Inven.	4 32	7 28	15 54	21 28	1 40	6 24	3 24
4	[of Cross]	4 31	7 29	16 11	17 51	2 26	7 19	3 30
5		4 29	7 31	16 28	13 16	2 52	8 11	3 35
6	John Ev. a. P. L.	4 27	7 33	16 45	8 2	3 15	9 0	3 40
7	S. of. East.	4 25	7 35	17 2	2 29	3 33	9 47	3 44
8		4 24	7 36	17 18	3 s 7	3 51	10 33	3 48
9		4 22	7 38	17 34	8 29	4 8	11 21	3 51
10		4 21	7 39	17 49	13 24	☾ rises	morn	3 54
11		4 19	7 41	18 5	17 38	8 a 30	0 7	3 56
12	Old May Day	4 18	7 42	18 20	20 19	9 36	0 56	3 58
13		4 16	7 44	18 34	23 18	10 48	1 46	3 59
14	Sun. of. East.	4 14	7 46	18 49	24 29	11 44	2 37	3 59
15		4 13	7 47	19 3	24 31	morn	3 27	3 59
16		4 12	7 48	19 17	23 27	0 29	4 17	3 58
17		4 10	7 50	19 30	21 20	1 5	5 5	3 56
18		4 9	7 51	19 43	18 18	1 33	5 52	3 54
19	Queen Cha. bo.	Dunf.	7 53	19 56	14 29	1 56	6 37	3 52
20		4 6	7 54	20 8	10 1	2 15	7 21	3 49
21	of Rega. Sun.	4 5	7 55	20 21	5 2	2 33	8 5	3 45
22	Pr. Elizab. bo.	4 3	7 57	20 32	0 n 17	2 48	8 48	3 41
23		4 2	7 58	20 44	5 46	3 5	9 34	3 36
24		4 1	7 59	20 55	11 8	3 22	10 22	3 31
25	Ascen. Holy Th.	4 0	8 0	21 5	16 5	3 44	11 14	3 25
26	Augustin Abp.	3 58	8 2	21 16	20 14	☾ sets	0 a 10	3 18
27	Venerable Bed.	3 57	8 3	21 26	23 11	9 a 42	1 10	3 11
28	Sun. of. Ascen.	3 56	8 4	21 35	24 35	10 51	2 12	3 4
29	K. Char. a. ref.	3 55	8 5	21 45	24 16	11 45	3 15	2 56
30	Term en.	3 54	8 6	21 53	22 18	morn	4 16	2 48
31	Lamb. T. di. n.	3 53	8 7	22 2	21 55	0 26	5 14	2 40
Days	Day	Length	Helioc.	Helioc.	Helioc.	Helioc.	Helioc.	Helioc.
	increas.	of day	long. ♀	long. ♀	long. ♂	long. ☉	long. ♀	long. ♀
1	7 4	14 48	29 11 29	0 16	10 45	11 32	23 53	26 11 18
7	7 26	15 10	29 43	0 49	4 38	17 20	3 8 28	2 11 33
13	7 44	15 28	29 56	1 22	7 30	23 7	13 5	3 11 50
19	8 9	15 46	0 10	1 55	10 21	28 53	22 42	29 41
25	8 16	16 0	0 23	2 28	13 10	4 39	2 11 20	21 20

1797.

May.

17

M	Daylig.	Daylig.	Durat.	Pl. C's	h's	u's	δ's	♀'s	♂'s
D	begins	ends	twilig.	node	latitude	latitude	latitude	latitude	altitude
1	2 4 9 58	2 34	24 II 51	0 s 53	1 s 7	0 n 51	1 s 7	1 n 7	
7	1 46 10 16	2 41	24 32	0 52	1 8	0 54	0 57	1 57	
13	1 19 10 44	3 0	24 13	0 51	1 9	0 55	0 w 45	2 21	
19	0 43 11 22	4 29	23 53	0 5	1 10	0 57	0 32	2 15	
25	No real night.			23 34	0 50	1 11	0 59	0 18	1 37
M	☉'s	☌'s	☌'s	h's	u's	δ's	♀'s	♂'s	
D	longitude	long.	latitude	longit.	longit.	longit.	longit.	long.	
1	8 11 31 42	1 10 18	1 n 36	25 II 3	6 v 56	12 II 34	4 8 10	21 8 33	
2	12 29 48	25 32	2 46	25 10	7 9 13	14 5	24 23	37	
3	13 27 52	9 44	3 46	25 16	7 22 13	54 6	38 25	38	
4	14 25 54	23 51	4 31	25 23	7 35 14	34 7	52 27	36	
5	15 23 55	7 25	5 0	25 29	7 48 15	14 9	6 29	32	
6	16 21 53	21 44	5 11	25 36	8 0 15	54 10	20 11	26	
A 7	17 19 50	5 26	5 4	25 42	8 13 16	34 11	33 3	29	
8	18 17 49	18 57	4 40	25 49	8 26 17	14 12	47 5	9	
9	19 15 38	21 15	4 1	25 56	8 39 17	54 14	1 6	55	
10	20 13 29	15 18	3 10	26 3	8 52 18	33 15	15 8	33	
11	21 11 19	28 5	2 11	26 10	9 4 19	13 16	29 10	13	
12	22 9 7	10 38	1 6	26 17	9 17 19	53 17	43 11	48	
13	23 6 54	22 56	0 s 1	26 24	9 29 20	32 18	56 13	21	
A 14	24 4 40	5 19	1 1	26 31	9 41 21	12 20	10 14	49	
15	25 2 25	16 58	2 9	26 38	9 53 21	52 21	24 16	34	
16	26 0 9	28 49	3 5	26 45	10 5 22	31 22	38 17	35	
17	26 57 51	10 39	3 54	26 52	10 17 23	27 23	52 18	33	
18	27 55 33	22 33	4 32	26 59	10 29 23	51 25	6 20	6	
19	28 53 13	4 35	4 59	27 6	10 41 24	39 26	19 21	17	
20	29 50 53	16 50	5 13	27 13	10 53 25	10 27	33 22	24	
A 21	0 48 32	29 23	5 13	27 21	11 5 25	49 28	47 23	27	
22	1 46 10	12 16	4 57	27 28	11 16 26	28 0 II	0 24	23	
23	2 43 47	25 32	4 25	27 35	11 28 27	8 1	14 18	18	
24	3 41 23	9 11	3 37	27 43	11 39 27	47 2	28 16	8	
25	4 38 58	23 13	2 35	27 50	11 51 28	26 3	41 26	55	
26	5 36 32	7 II 32	2 22	27 58	12 2 29	6 4	55 27	37	
27	6 34 5	22 6	0 3	28 5	12 14 29	45 6	9 28	15	
A 28	7 31 36	6 46	1 n 18	28 12	12 25 0 24	7 23	28 49		
29	8 29 7	21 27	2 33	28 20	12 36 1	4 8	37 29	18	
30	9 26 36	6 2	3 38	28 27	12 47 1	43 9	51 29	41	
31	10 24 4	20 28	4 28	28 34	12 58 2	22 11	5 0 3		
M	u's	δ's	♀'s	♂'s	h's	u's	δ's	♀'s	♂'s
D	rises	sets	rises	sets	declin.	declin.	declin.	declin.	declin.
1	4 m 12	10 22	4 m 29	8 a 2	22 n 29	1 n 43	23 n 11	11 n 53	19 n 16
7	3 44	10 20	4 23	9 9	22 31	2 11	23 41	14 25	22 45
13	3 16	10 17	4 17	9 51	22 33	2 39	24 3	16 45	24 46
19	2 48	10 12	4 11	10 8	22 35	3 6	24 19	18 50	25 26
25	2 20	10 6	4 4	10 32	22 37	3 34	24 27	20 27	25 3

B

The LUNATIONS.

First quarter the 1st day, at 17 minutes past 12 night.

Full Moon the 9th day, at 26 minutes past 11 morning.

Last quarter the 17th day, at 12 minutes past 3 afternoon.

New Moon the 24th day, at 26 minutes past 4 afternoon.

M	Sundays & other	☉	☉	☉'s	D's	D rises	D	Clock
D	Remark, days,	rises	sets	declin.	declin.	& sets	South	after. ☉
1	Nico. Ox. T. r.	3 52	8 8	8 22 10	14 29	6 58	6 27	2 31
2		3 51	8 9	22 18	9 21	1 21	6 57	2 22
3	[III. b.	3 51	8 9	22 25	3 51	1 40	7 44	2 13
4	Whit S. K. Geo.	3 50	8 10	22 32	3 43	1 56	8 29	2 4
5	Whit M. P. Er.	Donita.	8 11	22 38	7 7	2 12	9 15	1 52
6	Wh. T. (Amb)	3 49	8 12	22 45	12 6	2 31	10 1	1 44
7	Ember Week	3 48	8 12	22 50	16 30	2 50	10 48	1 35
8		3 47	8 13	22 56	20 6	3 13	11 37	1 10
9		3 46	8 14	23 1	22 44	D rises	morn	1
10		3 46	8 14	23 5	24 16	9 33	0 26	0 56
11	Tu. S. St. Barn.	3 45	8 15	23 9	24 40	10 22	1 17	0 44
12		3 45	8 15	23 13	23 55	11 2	2 7	0 19
13		3 44	8 16	23 16	22 6	11 33	2 56	0 29
14	Oxf. Term beg.	3 44	8 16	23 19	19 21	11 55	3 41	0 7
15	Corpus Christi	3 44	8 16	23 22	15 47	morn	4 28	0 1
16	Tuo. Term be.	3 43	8 17	23 24	11 33	0 16	5 12	0 1
17	St. Alban	3 43	8 17	23 25	6 48	0 34	5 55	0 3
18	1 Sun. af. Trin.	3 43	8 17	23 27	1 40	0 49	6 37	0 44
19		3 43	8 17	23 27	3 40	1 6	7 21	0 58
20	Tra. Edw. RWS	3 43	8 17	23 28	9 0	1 22	8 6	1 10
21	Longest Day	3 43	8 17	23 28	14 6	1 40	8 55	1 23
22		3 43	8 17	23 27	18 36	2 4	9 48	1 30
23		3 43	8 17	23 27	22 6	2 34	10 46	1 49
24	Nativ. J. Bap.	Midf.	8 17	23 25	24 13	D sets	11 48	2 3
25	2 Sun. af. Trin.	3 43	8 17	23 24	24 36	9 29	0 53	2 11
26		3 43	8 16	23 22	23 11	10 17	1 57	2 27
27		3 44	8 16	23 19	20 10	10 53	2 58	2 40
28		3 44	8 16	23 16	15 52	11 20	3 55	2 52
29	St. Peter	3 44	8 15	23 13	10 45	11 40	4 47	3 4
30		3 45	8 15	23 9	5 12	11 59	5 36	3 16

M	Day	Length	Helioc.	Helioc.	Helioc.	Helioc.	Helioc.	Helioc.	h
D	increas.	of day	long. h	long. 1/2	long. 1/4	long. 1/8	long. 1/16	long. 1/32	sets
1	8	32 16	16 02	58	3 7	8 16	26 11	22 13	11 37
7	8	40 16	24 0	52	3 41	19 17	6 23	18 0	18 9
13	8	48 16	32 1	54	4 21	58 22	49 35	0 16	49 8
19	8	50 16	34 1	19	4 47	24 43	28 33	12 43	50 31
25	8	50 16	34 1	32	5 20	27 25	48 46	22 27	22 9

1797.

June.

19

M	Daylig. begins	Daylig. ends	Durat. tw. l. g.	Pi. (C's node	b's latitude	u's latitude	δ's latitude	♀'s latitude	♂'s latitude
1				23 II 12	0 8 49	1 8 12	1 n 1	0 8 2	0 n 14
7	No	real	night.	22 53	0 48	1 13	1 2	0 n 12	1 8 22
13				22 34	0 47	1 15	1 3	0 26	3 1
19				22 15	0 46	1 10	1 4	0 40	4 14
25				21 56	0 46	1 17	1 5	0 52	4 37
M	☉'s longitude	☽'s long.	☽'s latitude	h's long.	u's long.	δ's long.	♀'s long.	♂'s long.	
1	11 1	21 30	4 12 41	5 n 2	8 11 42	13 9	3 26	1 12 11 18	0 26 19
2	12 18	56 18	3 8	5 16	28 49	13 20	3 41	13 32	0 32
3	13 16	20 2	19	5 12	28 57	13 30	4 20	14 46	0 R 38
4	14 13	43 15	45	4 52	29 5	13 41	4 59	15 59	0 37
5	15 11	5 23	55	4 16	29 12	13 51	5 38	17 13	0 33
6	16 8	25 11	14	3 27	29 20	14 2	6 17	18 27	0 26
7	17 5	45 24	31	2 30	29 28	14 12	6 56	19 40	0 16
8	18 3	4 6	59	1 26	29 36	14 22	7 35	20 54	0 1
9	19 0	32 19	16	0 18	29 44	14 32	8 14	22 8	29 11 41
10	19 57	39 15	23	0 8 49	29 52	14 42	8 53	23 22	29 17
A	20 54	56 13	25	1 53	0 0	14 51	9 32	24 36	28 51
12	21 52	12 25	1	2 52	0 7	15 1	10 11	25 50	28 22
13	22 49	28 7	6	3 43	0 15	15 10	10 50	27 11	3 27 53
14	23 46	43 18	57	4 24	0 23	15 19	11 29	28 17	27 19
15	24 43	59 0	51	4 55	0 31	15 28	12 8	29 30	26 46
16	25 41	14 12	53	5 13	0 38	15 37	12 47	0 26 44	26 11
17	26 38	29 25	7	5 17	0 46	15 40	13 26	1 57	25 36
A	27 35	44 7	37	5 7	0 54	15 55	14 5	3 11	25 2
19	28 32	59 20	27	4 41	1 2	16 4	14 43	4 24	24 30
20	29 30	14 38	41	4 0	1 10	16 13	15 22	5 3	23 59
21	0 27	28 17	21	3 4	1 18	16 21	16 1	6 52	23 31
22	1 24	43 1	11	27	1 25	16 29	16 40	8 6	23 5
23	2 21	58 15	56	0 37	1 33	16 37	17 18	9 20	22 42
24	3 19	12 0	44	on 45	1 41	16 45	17 57	10 34	22 23
A	4 16	26 15	45	2 5	1 49	16 53	18 35	11 47	22 8
26	5 13	40 0	48	3 16	1 56	17 0	19 14	13 12	21 57
27	6 10	54 15	46	4 14	2 4	17 8	19 53	14 15	21 50
28	7 8	7 0	31	4 53	2 12	17 15	20 31	15 28	21 D 48
29	8 5	20 14	56	5 14	2 20	17 23	21 10	16 42	21 51
30	9 1	33 29	c	5 14	2 28	17 30	21 49	17 56	21 59
M	u's rises	♂'s sets	♀'s sets	♂'s t	h's declin.	u's declin.	♂'s declin.	♀'s declin.	♂'s declin.
1	1 m 49	9 58	8 a 12	9 41	22 n 39	4 n 6	24 n 27	22 n 16	23 n 42
7	1 25	9 50	8 20	9 4	22 39	4 26	24 19	23 16	22 6
13	1 1	9 40	8 28	8 18	22 40	4 46	24 5	23 53	20 26
19	0 37	9 29	8 37	7 28	22 40	5 6	23 43	24 1	19 8
25	0 13	9 17	8 45	6 47	22 40	5 2	23 15	24 49	18 37

B 2

The LUNATIONS.

First quarter the 1st day, at 54 minutes past 6 morning.

Full Moon the 9th day, at 7 minutes past 2 morning.

Last quarter the 17th day, at 8 minutes past 4 morning.

New Moon the 23d day, at 25 minutes past 11 night.

First quarter the 30th day, at 7 minutes past 4 afternoon.

M D	Sundays & other remark. days	☉ rises	☉ sets	☉'s declin.	☾'s declin.	☾ rises & sets	☾ South	Clock bef. ☉	
1	[Visitation	3 46	8 14	23 n 5	0 s 27	morn	6 a 22	3 28	
2	Sun. af. Trin.	3 46	8 14	23 1	5 56	0 14	7 8	3 39	
3	Dog days begin	3 47	8 13	22 57	11 2	0 32	7 54	3 50	
4	Cam. C. T. Mar.	3 47	8 13	22 51	15 33	0 51	8 40	4 1	
5	Ter. e. Old Mid.	3 48	8 12	22 45	19 19	1 12	9 28	4 11	
6		3 49	8 11	22 39	22 10	1 37	10 17	4 21	
7	T. à Beck. Cam.	3 49	8 11	22 32	23 58	2 10	11 7	4 31	
8	[Ter. e.	3 50	8 10	22 25	24 39	2 51	11 57	4 40	
9	Sun. af. Trin.	3 51	8 9	22 18	24 12	☾ rises morn		4 49	
10	Oxford Act	3 52	8 8	22 11	22 39	9 a 27	0 46	4 57	
11		3 53	8 7	22 3	20 7	9 55	1 34	5 5	
12		3 54	8 6	21 54	16 44	10 17	2 20	5 12	
13		3 55	8 5	21 45	12 41	10 35	3 4	5 19	
14	[Ter. e.	3 56	8 4	21 36	8 6	10 51	3 47	5 26	
15	Swithin. Oxfo.	3 57	8 3	21 27	3 8	11 6	4 29	5 32	
16	Sun. af. Trin.	3 58	8 2	21 17	2 n 3	11 21	5 11	5 38	
17		3 59	8 1	21 7	7 17	11 39	5 55	5 43	
18		4 0	8 0	20 56	12 21	morn	6 41	5 48	
19		4 2	7 58	20 45	16 59	0 1	7 31	5 52	
20	Margaret	4 3	7 57	20 34	20 51	0 29	8 25	5 55	
21		4 4	7 56	20 22	23 32	1 1	9 24	5 58	
22	Magdalen	4 5	7 55	20 10	24 40	1 50	10 27	6 1	
23	Sun. af. Trin.	4 7	7 53	19 58	24 1	☾ sets	11 32	6 3	
24		4 8	7 52	19 45	21 35	8 a 44	0 36	6 4	
25	St. James	4 10	7 50	19 32	17 38	9 15	1 37	6 5	
26	S. Anne	4 11	7 49	19 19	12 37	9 39	2 33	6 5	
27		4 12	7 48	19 5	6 59	9 59	3 25	6 5	
28		4 14	7 46	18 51	1 9	10 17	4 14	6 4	
29		4 15	7 45	18 37	4 34	10 35	5 2	6 2	
30	Sun. af. Trin.	4 17	7 43	18 22	9 54	10 53	5 49	6 0	
31		4 18	7 42	18 7	14 38	11 14	6 36	5 57	
M D	Day decreas.	Length of day	Helioc. long. ♀	Helioc. long. ♀	Helioc. long. ♂	Helioc. long. ☉	Helioc. long. ♀	Helioc. long. ♂	h rises
1	0 6	16 28	10 46	5 52	0 9	10 50	2 11	10 35	3 m 16
7	0 12	16 22	2 0	6 25	2 51	15 43	11 57	2 56	2 56
13	0 24	16 10	2 13	6 58	5 32	21 26	21 42	29 28	2 36
19	0 38	15 56	2 27	7 31	8 12	27 10	1 m 28	1 8 12	2 16
25	0 54	15 40	2 40	8 4	10 52	2 m 54	11 13	7 11 36	1 56

1797.

July.

21

M	Daylig.	Day lig.	Durat.	Pl. D's	h's	u's	δ's	♀'s	♂'s
D	begins	ends	twilig.	node	latitude	latitude	latitude	latitude	latitude
1				21 11 37	0 47	1 19	1 n 6	1 n 3	4 11
7	No	real	night.	21 18	0 46	1 20	1 7	1 12	3 11
13				20 59	0 45	1 22	1 7	1 20	1 54
19				20 40	0 45	1 23	1 8	1 26	0 33
25	0 45	11 7	3 17	20 21	0 44	1 25	1 9	1 29	0 39

M	☉'s	D's	D's	h's	u's	δ's	♀'s	♂'s
D	longitude	long.	latitude	long.	long.	long.	long.	long.

1	9 59 45	12 40	4 n 57	2 36	17 37	22 27	19 26	9 22 11 14
A	10 56 57	25 58	4 24	2 43	17 43	23 6	20 23	22 27
3	11 54 8	8 m 55	3 38	2 51	17 50	23 45	21 37	22 50
4	12 51 19	21 34	2 43	2 59	17 56	24 23	22 51	23 21
5	13 48 30	3 1 59	1 41	3 6	18 3	25 2	24 5	23 56
6	14 45 41	16 12	0 35	3 14	18 9	25 41	25 19	24 34
7	15 42 52	28 17	0 31	3 22	18 15	26 19	26 32	25 15
8	16 40 3	10 5 14	1 36	3 30	18 21	26 58	27 46	26 2
A	17 37 14	22 7	2 35	3 37	18 27	27 36	29 0	26 55
10	18 34 26	3 58	3 28	3 45	18 33	28 15	0 13	27 54
11	19 31 38	15 48	4 12	3 53	18 39	28 53	1 27	28 57
12	20 28 50	27 40	4 44	4 1	18 44	29 32	2 41	0 24
13	21 26 3	9 36	5 5	4 8	18 49	0 10	3 54	1 15
14	22 23 16	21 40	5 13	4 16	18 53	0 49	5 8	2 31
15	23 20 30	3 54	5 6	4 23	18 58	1 27	6 22	3 52
A	24 17 45	16 23	4 45	4 31	19 2	2 5	7 35	5 17
17	25 15 1	29 9	4 10	4 38	19 6	2 44	8 49	6 46
18	26 12 18	12 8 17	3 21	4 46	19 11	3 22	10 3	8 19
19	27 9 36	25 50	2 19	4 53	19 15	4 0	11 16	9 57
20	28 6 54	9 11 50	1 7	5 1	19 19	4 38	12 30	11 38
21	29 4 13	24 16	0 n 11	5 8	19 23	5 17	13 44	13 23
22	0 1 33	9 5	1 31	5 15	19 27	5 55	14 57	15 12
A	0 58 54	24 12	2 45	5 23	19 30	6 33	16 11	17 4
24	1 56 16	9 26	3 49	5 30	19 33	7 12	17 25	18 58
25	2 54 39	24 39	4 35	5 37	19 36	7 50	18 38	20 54
26	3 51 2	9 40	5 3	5 45	19 39	8 29	19 52	22 52
27	4 48 26	24 19	5 9	5 52	19 42	9 7	21 6	24 53
28	5 45 50	8 33	4 56	5 59	19 44	9 45	22 19	26 56
29	6 43 15	22 19	4 27	6 6	19 47	10 23	23 33	29 0
A	7 40 40	5 m 37	3 43	6 13	19 49	11 2	24 47	1 14
31	8 38 6	18 30	2 50	6 20	19 50	11 40	26 0	3 9

M	u's	δ's	♀'s	♂'s	h's	u's	δ's	♀'s	♂'s
D	rises	sets	sets	rises	declin.	declin.	declin.	declin.	declin.
1	11 2 48	9 a 6	8 a 55	2 m 54	22 n 40	5 n 44	22 n 41	23 n 8	19 n 3
7	11 24	8 56	8 50	2 37	22 39	5 59	22 0	23 3	20 11
13	11 0	8 45	8 45	2 30	22 38	6 8	21 14	20 36	21 34
19	10 36	8 34	8 40	2 38	22 37	6 16	20 23	18 47	22 35
25	10 12	8 12	8 35	3 9	22 36	6 43	19 27	16 40	23 29

The LUNATIONS.

Full Moon the 7th day, at 31 minutes past 5 afternoon.
 Last quarter the 15th day, at 53 minutes past 2 after noon.
 New Moon the 22d day, at 33 minutes past 6 morning.
 First quarter the 29th day, at 54 minutes past 4 morning.

M	Sundays & other D remark, days	☉ rises	☉ sets	☉'s declin.	D'a declin.	D rises & sets	D South	Clock bef. ☉
1	Emmas Day	4 20	7 40	17 52	18 36	11 a 38	7 a 23	5 53
2		4 22	7 38	17 37	21 41	morn 8	12 5	49
3		4 23	7 37	17 21	23 43	0 10	9 2	5 44
4		4 25	7 35	17 5	24 3	0 48	9 52	5 39
5		4 26	7 31	16 4	24 27	1 35	10 43	5 31
6	8 Sun. af. Trin.	Transf.	7 32	16 32	23 8	2 33	11 31	5 28
7	Prs. Amelis b.	Na of J.	7 30	16 15	20 48	D rises	morn	5 19
8		4 31	7 29	15 58	17 35	8 a 23	0 18	5 11
9		4 33	7 27	15 41	13 38	8 41	1 3	5 3
10	St Lawrence	4 35	7 25	15 23	9 8	8 59	1 46	4 54
11	Prs. Brunf b.	Do. d. e.	7 23	15 5	4 14	9 14	2 29	4 44
12	Pr. of Wales b.	O. Lam	7 21	14 47	0 n 54	9 29	3 11	4 34
13	9 Sun. af. Trin.	4 40	7 20	14 29	6 4	9 44	3 53	4 24
14		4 42	7 18	14 10	11 7	10 4	4 37	4 13
15	Assumption	4 44	7 16	13 41	15 47	10 28	5 26	4 1
16	Eu. of York b.	4 45	7 15	13 32	19 49	10 57	6 16	3 4
17		4 47	7 13	13 13	22 51	11 38	7 13	3 36
18		4 49	7 11	12 54	24 33	morn 8	17 3	21
19		4 51	7 9	12 34	24 37	0 35	9 14	3 10
20	10 Sun. a. Tri.	4 53	7 7	12 14	22 55	1 44	10 18	2 56
21	Di of Clares. b.	4 55	7 6	11 54	19 34	3 7	11 21	2 41
22		4 56	7 4	11 34	14 54	D fts	0 a 20	2 26
23		4 58	7 2	11 14	9 21	8 a 6	1 10	2 11
24	St. Bartholomew	5 0	7 0	10 53	3 22	8 26	2 8	1 55
25		5 2	6 58	10 3	2 38	8 24	2 58	1 40
26		5 4	6 56	10 11	8 19	9 7	3 46	1 23
27	11 Sun. a. Tri.	5 6	6 54	9 50	13 25	9 22	4 38	1 6
28	St. Augustine	5 8	6 52	9 29	17 45	9 46	5 23	0 48
29	John. Bap. beh.	5 9	6 51	9 7	21 8	10 15	6 12	0 31
30		5 11	6 49	8 46	23 29	10 50	7 1	0 15
31		5 13	6 47	8 24	24 42	11 36	7 54	0 0
M	Day Length	Helioc.	Helioc.	Helioc.	Helioc.	Helioc.	Helioc.	h
D	decreaf. of day	long. h	long. h	long. δ	long. ⊖	long. ♀	long. δ	ri-
1	14 15 20	25 55	8 43	130 58	9 36	22 13	21 6	1 m 29
7	1 34 15 0	3 9	9 16	16 36	15 20	2 18	24 14	1 9
13	1 54 14 40	3 22	9 49	19 15	21 6	0 21	24 45	0 49
19	2 16 14 18	3 36	10 22	23 53	26 53	21 40	14 27	0 29
25	2 78 13 56	3 49	10 55	24 30	2 40	1 m 19	4 m 16	0 9

1797.

August

23

M	Day	lig	Day	lig	Durat.	Pl. D's	h's	U's	δ's	♀'s	♂'s	
D	begins	ends	twilig.	node	latitude	latitude	latitude	latitude	latitude	latitude	latitude	
1	1	24	10	34	2	55	19	11	58	0	45	
7	1	47	10	11	2	42	19	39	0	45	1	28
13	1	9	9	49	2	30	19	20	0	44	1	30
19	2	29	9	30	2	21	19	7	0	44	1	31
25	2	47	9	12	2	14	18	42	0	44	1	31
M	O's		D's		D's		h's		U's		δ's	
D	longitude		long.		latitude		long.		long.		long.	
1	9	35	32	1	2	1	4	6	27	19	5	12
2	10	32	59	13	18	0	45	6	34	19	53	12
3	11	30	27	25	22	0	20	6	41	19	54	13
4	12	27	55	18	1	23	6	48	19	55	14	13
5	13	25	24	10	10	2	2	6	55	19	54	14
6	14	22	55	0	59	3	15	7	2	19	50	15
7	15	20	26	12	50	3	59	7	8	19	50	16
8	16	17	58	24	43	4	33	7	15	19	50	16
9	17	15	31	6	39	4	55	7	22	19	56	17
10	18	13	6	18	43	5	4	7	29	19	54	18
11	19	10	43	0	52	5	0	7	35	19	55	18
12	20	8	20	13	11	4	41	7	42	19	54	19
13	21	5	59	25	43	4	9	7	48	19	54	19
14	22	3	40	8	29	3	24	7	54	19	53	20
15	23	1	23	21	33	2	28	8	1	19	52	21
16	23	59	7	4	11	1	22	8	7	19	50	21
17	24	56	53	18	48	0	9	8	13	19	48	22
18	25	54	41	3	12	1	7	8	19	19	46	23
19	26	52	35	17	39	2	20	8	26	19	44	23
A	27	50	27	2	37	2	25	8	31	19	42	24
21	28	48	14	17	47	4	16	8	37	19	40	25
22	29	46	8	3	12	4	49	8	43	19	37	25
23	0	44	2	18	5	5	2	8	49	19	34	26
24	1	42	2	2	51	4	54	8	54	19	30	26
25	2	40	0	17	13	4	28	9	0	19	27	27
26	3	38	0	1	5	3	47	9	5	19	23	28
A	4	36	2	14	28	2	54	9	11	19	29	28
28	5	34	4	27	23	1	54	9	16	19	16	29
29	6	32	8	9	55	0	50	9	22	19	13	30
30	7	30	11	22	9	0	15	9	27	19	9	30
31	8	28	20	4	10	1	18	9	33	19	5	31
M	U's	δ's	♀'s	♂'s	h's		U's		δ's		♀'s	
D	rises	sets	sets	sets	declin.		declin.		declin.		declin.	
1	9	49	7	54	8	28	7	45	22	34	6	26
7	9	27	7	41	8	17	7	47	22	32	6	25
13	9	5	7	28	8	6	7	46	22	30	6	23
19	8	43	7	15	7	55	7	40	22	28	6	19
25	8	31	7	3	7	44	7	31	22	26	6	12
31	8	21	7	2	7	44	7	31	22	26	6	12
1	9	49	7	54	8	28	7	45	22	34	6	26
7	9	27	7	41	8	17	7	47	22	32	6	25
13	9	5	7	28	8	6	7	46	22	30	6	23
19	8	43	7	15	7	55	7	40	22	28	6	19
25	8	31	7	3	7	44	7	31	22	26	6	12

The LUNATIONS.

Full Moon the 6th day, at 7 minutes past 9 morning.
 Last quarter the 13th day, at 50 minutes past 11 night.
 New Moon the 20th day, at 51 minutes past 2 afternoon.
 First quarter the 27th day, at 34 minutes past 9 night.

M	Sundays & other D remark. days	☉ rises	☉ sets	☉'s declin.	☿'s declin.	☿ rises & sets	☿ South	Clock aft. ☉
1	Giles	5 15	6 45	8 n 2	24 s 46	morn	8 a 45	0 25
2	Lamb. but. 666	5 17	6 43	7 40	23 42	0 30	9 34	0 44
3		5 19	6 41	7 18	21 35	1 32	10 21	1 3
4		5 21	6 39	6 56	18 32	2 39	11 7	1 23
5		5 23	6 37	6 34	14 43	3 57	11 52	1 43
6		5 25	6 35	6 11	10 16	(☿ rises	morn	2 3
7	Enurhus	5 27	6 33	5 49	5 22	7 a 27	0 35	2 23
8	Nativ. V. M.	5 29	6 31	5 26	0 13	7 43	1 17	2 43
9	13 Sun. af. Tr.	5 31	6 29	5 3	5 n 2	7 59	2 0	3 4
10		5 32	6 28	4 41	10 9	8 17	2 44	3 25
11		5 34	6 26	4 18	14 56	8 38	3 30	3 45
12		5 36	6 24	3 55	19 6	9 6	4 19	4 6
13		5 38	6 22	3 32	22 22	9 40	5 12	4 27
14	Holy Cross	5 40	6 20	3 9	24 25	10 28	6 9	4 48
15		5 42	6 18	2 46	25 0	11 31	7 9	5 9
16	14 Sun. af. Tr.	5 44	6 16	2 22	23 56	morn	8 11	5 30
17	Lamb.	5 48	6 14	1 59	21 14	0 48	9 12	5 51
18		5 50	6 12	1 36	17 7	2 13	10 12	6 12
19	Ember Week	5 52	6 10	1 12	11 54	3 41	11 8	6 33
20	St. Matthew	5 54	6 8	0 49	6 1	☿ sets	0 a 2	6 54
21	K. Geo. III. cr.	5 56	6 6	0 26	0 s 8	6 a 54	0 53	7 14
22		5 58	6 4	0 2	6 8	7 13	1 43	7 35
23	15 Sun. af. Tr.	6 0	6 2	0 21	11 40	7 32	2 33	7 56
24		6 2	5 58	1 3	20 19	8 22	4 14	8 36
25	Old Holyrood	6 4	5 56	1 32	23 6	8 57	5 5	8 56
26	St. Cyprian	6 6	5 54	1 55	24 42	9 39	5 57	9 16
27		6 8	5 52	2 18	25 6	10 29	6 48	9 36
28	St. Mi. Pz. Ro. b	6 10	5 50	2 42	24 21	11 30	7 38	9 55
29		6 12	5 48	3 5	22 30	morn	8 26	10 15
30	St. Jerome							
M	Day	Length	Helioc.	Helioc.	Helioc.	Helioc.	Helioc.	Helioc.
D	decreas.	of day	long. ♀	long. ♀	long. ♂	long. ☉	long. ♀	long. ♂
1	30	4 13 30	4 20	5 11	34 3	2 34	9 26	12 m 32
7	3	28 13 6	4 19	12 7	0 m 11	15 16	22 7	11 25
13	3	50 12 44	4 33	12 40	2 48	21 34	1 41	27 58
19	4	14 12 20	4 46	13 13	5 25	26 56	11 13	15 12
25	4	38 11 56	4 59	13 46	8 3	2 31	20 44	3 m 55

1797.

September.

25

Day	lig. begins	Day lig ends.	Durat. twilig.	Pl. D's node	h's latitude	u's latitude	δ's latitude	♀'s latitude	♂'s latitude
1	3 7	8 52	2 7	18 11 20	0 44	1 35	1 9	0 53	0 25
2	3 23	8 36	2 3	18 1	0 44	1 36	1 8	0 39	1 14
3	3 38	8 21	1 59	17 42	0 44	1 37	1 8	0 24	2 4
4	3 52	8 7	1 57	17 23	0 43	1 38	1 7	0 9	2 49
5	4 5	7 54	1 56	17 4	0 43	1 38	1 7	0 11	3 23

Day	⊙'s longitude	☽'s long.	☽'s latitude	h's long.	u's long.	δ's long.	♀'s long.	♂'s long.
1	9 26 28	16 3	2 s 16	9 30	19 1	2 12	5 13	1 21
2	10 24 37	27 52	3 9	9 43	18 56	2 40	6 27	2 29
3	11 22 48	9 42	3 53	9 48	18 51	3 18	7 40	3 55
4	12 21 1	21 34	4 27	9 53	18 46	3 57	8 53	5 19
5	13 19 15	3 33	4 49	9 58	18 40	4 35	10 7	6 42

6	14 17 31	15 38	4 59	10 3	18 35	5 13	11 20	8 3
7	15 15 48	27 51	4 56	10 7	18 30	5 52	12 33	9 23
8	16 14 7	10 13	4 38	10 12	18 24	6 30	13 46	10 42
9	17 12 29	22 44	4 7	10 17	18 19	7 8	14 59	11 59
10	18 10 53	5 26	3 23	10 22	18 14	7 46	16 13	13 15

11	19 9 19	18 20	2 28	10 26	18 8	8 24	17 26	14 29
12	20 7 47	1 12 8	1 24	10 30	18 2	9 2	18 39	15 41
13	21 6 17	14 52	0 14	10 34	17 55	9 40	19 52	16 52
14	22 4 49	28 34	0 58	10 38	17 48	10 18	21 5	18 1
15	23 3 24	12 36	2 8	10 42	17 42	10 56	22 18	19 8

16	24 2 1	26 58	3 12	10 46	17 35	11 34	23 31	20 12
17	25 0 40	11 37	4 5	10 50	17 28	12 13	24 44	21 14
18	25 59 22	26 29	4 41	10 54	17 21	12 51	25 57	22 14
19	26 58 6	11 25	4 59	10 58	17 14	13 29	27 10	23 11
20	27 56 52	26 18	4 57	11 1	17 7	14 7	28 23	24 5

21	28 55 39	10 58	4 35	11 4	17 0	14 45	29 36	24 57
22	29 54 29	25 17	3 56	11 7	16 53	15 24	30 49	25 46
23	30 53 21	9 10	3 4	11 10	16 46	16 2	2 26	31
24	1 52 14	22 35	2 3	11 13	16 38	16 41	3 15	27 11
25	2 51 10	5 34	0 57	11 16	16 30	17 10	4 27	27 47

26	3 50 7	18 9	0 9	11 19	16 23	17 57	5 40	28 19
27	4 49 4	1 25	1 14	11 22	16 15	18 35	6 53	28 46
28	5 48 4	12 27	2 14	11 25	16 7	19 14	8 6	29 9
29	6 47 7	24 20	3 7	11 28	15 59	19 52	9 19	29 26
30	7 46 12	6 10	3 52	11 31	15 51	20 31	10 32	29 35

Day	☽'s rises	♂'s rises	♀'s sets	♀'s sets	h's declin.	u's declin.	δ's declin.	♀'s declin.	♂'s declin.
1	7 a 52	4 m 27	7 a 33	7 a 19	22 n 24	5 n 59	11 n 50	1 s 16	0 s 47
2	7 30	4 27	7 24	7 6	22 22	5 47	10 26	4 22	4 52
3	7 8	4 28	7 14	6 52	22 20	5 33	9 0	7 28	8 32
4	6 46	4 28	7 5	6 37	22 18	5 17	7 32	10 22	11 38
5	6 24	4 29	6 55	6 20	22 16	4 59	6 2	13 12	13 51

The LUNATIONS.

Full Moon the 5th day, at 23 minutes past 12 night.

Last quarter the 13th day, at 31 minutes past 7 morning.

New Moon the 20th day, at 19 minutes past 1 morning.

First quarter the 27th day, at 7 minutes past 5 afternoon.

M	Sundays & other	☉	☉	☉'s	D's	D rises	D	Clock
D	remark, days	rises	sets	declin.	declin.	& sets	South.	astr. ☉
1	16 Sun. a. Tri.	6 14	5 40	3 29	19 41	om 35	9 a 13	10 34
2	Remigius	6 16	5 44	3 52	16 2	1 44	9 57	10 52
3		6 18	5 42	4 15	11 42	2 54	10 41	11 11
4		6 20	5 40	4 38	6 51	4 6	11 24	11 29
5		6 22	5 38	5 1	1 39	D rises	morn	11 46
6	Faith	6 24	5 36	5 24	3 14	6 a 13	0 6	12 4
7		6 26	5 34	5 47	8 19	6 30	0 50	12 20
8	17 Sun. a. Trin.	6 28	5 33	6 10	13 59	6 52	1 36	12 37
9	St. Denys	6 29	5 31	6 33	18 24	7 19	2 25	12 53
10	Ox & Cam. T. b.	O. Mic.	5 29	6 56	21 56	7 43	3 17	1 8
11		6 33	5 27	7 19	24 18	8 34	4 13	1 23
12		6 35	5 25	7 41	25 15	9 28	5 11	1 38
13	Tr. K. Edw. Con.	6 37	5 23	8 4	24 37	10 38	6 11	1 52
14		6 39	5 21	8 26	22 24	11 58	7 12	1 58
15	18 Sun. a. Tri.	6 41	5 19	8 48	18 47	morn	8 1	1 14
16		6 43	5 17	9 10	14 0	1 23	9 5	1 19
17	Eibeldred	6 45	5 15	9 32	8 26	2 51	9 58	1 42
18	St. Luke	6 47	5 13	9 54	2 25	4 14	10 48	1 53
19		6 49	5 11	10 16	3 40	5 35	11 38	1 58
20		6 51	5 9	10 37	9 29	D sets	0 a 28	1 5
21		6 53	5 7	10 59	14 42	6 a 1	1 18	1 5
22	19 Sun. af. Tri.	6 55	5 5	11 20	19 3	6 26	2 8	1 30
23		6 56	5 4	11 41	22 21	6 56	3 0	1 38
24		6 58	5 2	12 2	24 28	7 36	3 53	1 45
25	K. Geo. 3. acc. Crispin	5	0 12	21 25	19	8 23	4 45	1 51
26	K. Geo. 3. proc.	7 2	4 58	12 41	24 57	9 20	5 36	1 57
27		7 4	4 56	13 4	23 26	10 25	6 25	1 6
28	St. Sim. & Jude	7 6	4 54	13 24	20 54	11 33	7 12	1 6
29	20 Sun. af. Tri.	7 8	4 52	13 43	17 30	morn	7 57	1 9
30		7 9	4 51	14 3	13 22	0 43	8 41	1 12
31		7 11	4 49	14 27	8 40	1 54	9 23	1 12
M	Day	Length	Helioc.	Helioc.	Helioc.	Helioc.	Helioc.	H
D	decreas.	of day	long. ♀	long. ♀	long. ♂	long. ♂	long. ♂	rises
1	5 2	11 32	50 13	14 19	10 14	8 45	0 14	25 10 10
7	5 26	11 8	5 17	14 52	13 14	41 9	43 20	10 9 45
13	5 48	10 46	5 40	15 25	15 56	20 37	19 12	20 7 9 25
19	6 12	10 22	5 54	15 58	18 34	26 35	28 41	25 13 9 1
25	6 33	10 0	6 7	16 31	21 13	28 34	8 10	21 54 8 39

1797.

October.

27

Daylig. D begins	Daylig. ends	Durat. twilig.	Pl. D's node	h's latitude	U's latitude	δ's latitude	♀'s latitude	♂'s latitude
1 4 18	7 41	1 55	1144	0 84	1 31	1 6	3 30	3 35
7 4 31	7 28	1 54	16 25	0 43	1 39	1 5	0 48	3 4
13 4 43	7 16	1 53	16 6	0 43	1 38	1 4	1 7	1 32
19 4 55	7 4	1 53	15 47	0 43	1 38	1 3	1 25	0 n 29
25 5 6	6 53	1 53	15 28	0 43	1 37	1 2	1 41	1 48
☉'s longitude	☉'s long.	☉'s latitude	☉'s long.	☉'s long.	☉'s long.	☉'s long.	☉'s long.	☉'s long.
8 45 18	18 45	4 27	11 25	34 15	4 21	9 11	4 5	29 38
9 44 26	29 58	4 51	11 36	15 35	21 47	12 58	29 34	
10 43 34	12 2	5 2	11 38	15 27	22 25	14 11	29 23	
11 42 45	24 17	4 59	11 40	15 19	23 4	15 28	29 4	
12 41 58	6 43	4 43	11 42	15 10	23 42	16 36	28 37	
13 41 13	19 21	4 12	11 44	15 2	24 20	17 49	28 2	
14 40 31	28 10	3 28	11 46	14 54	24 59	19 127	27 19	
15 39 50	15 11	2 32	11 48	14 46	25 37	20 14	26 29	
16 39 12	28 22	1 28	11 50	14 38	26 15	21 26	25 31	
17 38 36	11 45	0 17	11 52	14 30	26 54	22 30	24 26	
18 38 3	25 19	0 n 55	11 54	14 22	27 32	23 51	23 12	
19 37 31	9 55	2 6	11 55	14 14	28 10	23 42	22 6	
20 37 3	23 3	3 10	11 56	14 6	28 49	26 16	20 52	
21 36 36	7 13	4 3	11 57	13 58	29 27	27 28	19 49	
A 22 36 12	21 34	4 42	11 58	13 50	0 52	28 41	18 31	
23 35 51	6 2	5 3	11 5	13 42	0 44	29 53	17 24	
24 35 32	20 33	5 5	12 0	13 34	1 22	1 5	16 26	
25 35 15	5 0	4 48	12 1	13 26	2 0	2 17	15 32	
26 35 0	19 19	4 12	12 1	13 18	2 39	3 29	14 52	
27 34 47	3 21	3 22	12 2	13 11	3 17	4 41	14 28	
28 34 36	17 4	2 21	12 2	13 4	3 56	5 54	14 13	
A 29 34 28	0 24	1 14	12 2	12 57	4 34	7 6	14 D 4	
23 M 0 34 20	13 21	0 4	12 R	2 12	50 5	13 8	18 14	8
24 1 34 15	25 58	1 5	4 12	2 12	43 5	51 9	30 14	23
25 2 34 12	8 16	2 7	12 2	12 36	6 30	16 42	14 50	
26 3 34 10	20 20	3 4	12 1	12 29	7 8	11 54	15 26	
27 4 34 10	2 15	3 52	12 1	12 22	7 47	13 6	10 10	
28 5 34 11	14 6	4 29	12 0	12 15	8 25	14 18	17 1	
A 6 34 14	25 50	4 56	12 0	12 8	9 4	15 30	17 59	
30 7 34 19	7 57	5 9	11 50	12 1	9 42	16 42	19 4	
31 8 34 25	20 5	5 0	11 50	11 54	10 30	17 54	20 15	
☉'s D	☉'s rises	☉'s sets	☉'s rises	☉'s declin.	☉'s declin.	☉'s declin.	☉'s declin.	☉'s declin.
1 6 n 57	4 30	6 45	8 m 26	22 n 15	4 n 40	4 n 31	15 51	14 43
7 6 31	4 30	6 41	7 40	22 14	4 23	3 0	18 16	13 23
13 6	4 29	6 37	6 36	22 13	4 4	1 27	20 26	9 34
19 5 3	4 28	6 33	5 36	22 12	3 46	0 5	22 16	5 27
25 5 13	4 27	6 29	5 23	22 12	3 28	1 38	23 45	4 12

The LUNATIONS.

Full Moon the 4th day, at 57 minutes past 2 afternoon.

Last quarter the 11th day, at 38 minutes past 2 afternoon.

New Moon the 18th day, at 34 minutes past 2 afternoon.

First quarter the 26th day, at 9 minutes past 2 afternoon.

M	Sundays & other remark days	☉ rises	☉ sets	☉'s declin.	☾'s declin.	☾ rises & sets	☾ South	Clock aft. ☉	
1	All Saints	7 13	4 47	14 42	3 32	3 m 4	10 a 5	16 15	
2	Fr. Edward born	All Sou	4 45	15 1	1 n 50	4 15	10 49	16 14	
3	Prs. Sophiab.	7 17	4 43	15 19	7 16	5 28	11 34	16 13	
4	K. William fan.	7 18	4 42	15 38	12 30	☾ rises	morn	16 12	
5	21 S. a. T. P. Pl.	7 20	4 40	15 56	17 15	5 a 22	0 22	16 11	
6	Mic. I. b. Leon.	7 22	4 38	16 14	21 11	5 50	1 14	16 10	
7		7 24	4 36	16 32	23 58	6 32	2 9	16 9	
8	Prs. Au. Sep. b.	7 25	4 35	16 49	25 19	7 24	3 8	16 8	
9	Lord Mayor's d.	7 27	4 31	17 6	25 4	8 29	4 8	15 54	
10		7 29	4 31	17 23	23 12	9 46	5 8	15 44	
11	St. Martin	7 30	4 30	17 40	19 54	11 10	6 6	15 41	
12	22 Sun. af. Tri.	Cam. T. civ. m	17 56	15 26	morn	7 1	1 15	15 34	
13	Britius	7 33	4 27	18 12	10 9	0 35	7 53	15 27	
14		7 35	4 25	18 27	4 21	1 56	8 43	15 19	
15	Machutus	7 37	4 23	18 42	1 37	3 18	9 31	15 8	
16		7 38	4 22	18 57	7 27	4 38	10 18	14 51	
17	Hugh Bp. Linc.	7 40	4 20	19 12	12 51	5 58	11 7	14 39	
18		7 41	4 19	19 26	17 33	☾ sets	11 56	14 29	
19	23 Sun. a. Tri.	7 42	4 18	19 40	21 17	4 a 51	0 a 47	14 18	
20	Edmund	7 44	4 16	19 54	23 54	5 25	1 39	13 56	
21		7 45	4 15	20 7	25 15	6 11	2 32	13 44	
22	Cecilia. O. Mart.	7 47	4 13	20 20	25 20	7 5	3 24	13 24	
23	St. Clement	7 48	4 12	20 32	24 12	8 5	4 14	13 7	
24		7 49	4 11	20 44	21 59	9 13	5 2	12 54	
25	Duke of Glouc. b.	Cather.	4 9	20 56	18 51	10 21	5 47	12 30	
26	24 Sun. af. Tri.	7 52	4 8	21 7	14 58	11 30	6 30	12 12	
27		7 53	4 7	21 18	10 28	morn	7 12	11 54	
28	Mic. Term ends	7 54	4 6	21 28	5 32	0 39	7 54	11 29	
29		7 55	4 5	21 38	0 16	1 49	8 36	11 10	
30	St. Andrew	7 56	4 4	21 48	5 n 8	3 2	9 19	10 45	
M	Day	Length	Helioc.	Helioc.	Helioc.	Helioc.	Helioc.	Helioc.	h
D	decreaf.	of day	long. ♀	long. ♂	long. ♀	long. ♂	long. ♀	long. ♂	rises
1	7 0	9 34	6 22	17 9	24 18	9 8	35 10	14 13	54 8 a 15
7	7 22	9 12	6 36	17 42	26 58	15 36	28 44	13 15	7 49
13	7 40	8 54	6 49	18 15	29 39	21 38	8 14	7 29	7 25
19	7 58	8 36	7 3	18 48	2 20	27 40	17 45	28 3	6 57
25	8 16	8 18	7 16	19 21	5 2	3 47	27 17	16 17	6 31

1797.

November.

29

Daylig. begins	Daylig. ends	Durat. twilig.	Pl. D's node	h's lat. tude	u's latitud	δ's latitud	♀'s latitude	♂'s lat. tude
5 17	6 42	1 55	13 11 6	0 43	1 36	1 11 C	1 58	2 11
5 25	6 35	1 59	14 47	0 43	1 35	0 59	2 11	1 54
5 33	6 27	2 0	14 28	0 42	1 33	0 57	2 20	1 21
5 41	6 19	2 1	14 9	0 42	1 31	0 56	2 27	0 41
5 48	6 12	2 3	13 50	0 42	1 30	0 54	2 30	0 5
☉'s longitude	☽'s long.	☽'s latitude	h's long.	u's long.	δ's long.	♀'s long.	♂'s long.	
9 34 32	2 27 27	4 55	11 25 58	11 47	1 59	9 5	21 30	
10 34 41	15 3	4 27	11 57	11 4	11 37	20 17	2 47	
11 34 53	27 56	3 44	11 56	11 3	12 16	21 28	4 8	
12 35 5	11 8 4	2 49	11 54	11 3	12 54	22 40	25 33	
13 35 20	24 28	1 42	11 52	11 24	13 33	23 51	26 59	
14 35 36	8 11 5	0 30	11 51	11 1	14 11	25 3	28 27	
15 35 54	21 53	0 45	11 49	11 1	14 5	26 15	29 58	
16 36 15	5 50	1 59	11 48	11 8	15 29	27 26	1 30	
17 36 38	19 53	3 6	11 46	11 3	16 7	28 37	3 22	
18 37 2	4 51	4 3	11 44	10 5	16 46	29 49	4 34	
19 37 28	18 11	4 44	11 42	10 53	17 24	1 0	6 7	
20 37 56	2 12 22	5 9	11 40	10 49	18 3	2 11	7 41	
21 38 27	16 31	5 14	11 38	10 45	18 42	3 22	9 17	
22 38 59	0 37	5 1	11 35	10 41	19 21	4 33	10 52	
23 39 33	14 36	4 30	11 33	10 38	20 0	5 43	12 27	
24 40 9	28 25	3 43	11 31	10 34	20 38	6 54	14 2	
25 40 47	12 11 2	2 45	11 28	10 30	21 17	8 4	15 37	
26 41 26	25 23	1 38	11 26	10 27	21 55	9 15	17 13	
27 42 7	8 28	0 27	11 23	10 23	22 34	10 25	18 48	
28 42 50	21 16	0 43	11 20	10 19	23 13	11 36	20 23	
29 43 34	3 47	1 50	11 17	10 16	23 51	12 46	21 58	
30 44 18	16 4	2 51	11 14	10 13	24 30	13 56	23 33	
1 45 5	28 8	3 43	11 11	10 11	25 9	15 7	25 8	
2 45 52	10 5	4 25	11 7	10 9	25 47	16 27	26 41	
3 46 40	21 56	4 55	11 4	10 8	26 26	17 27	28 18	
4 47 29	3 49	5 13	11 0	10 6	27 5	18 37	29 53	
5 48 19	15 47	5 17	10 57	10 5	27 43	19 47	1 28	
6 49 9	27 54	5 7	10 53	10 4	28 22	20 56	3 2	
7 50 1	10 16	4 43	10 50	10 2	29 122	6 4	36	
8 50 53	22 56	4 5	10 46	10 1	29 40	23 16	6 10	
u's fers	δ's rises	♀'s fers	♂'s rites	h's declin.	u's declin.	δ's declin.	♀'s declin.	♂'s declin.
4 m 39	4 m 26	6 a 23	5 m 24	22 11 13	3 n 12	3 s 26	24 s 59	6 s 23
4 13	4 24	6 31	5 50	22 14	3 1	4 5	25 36	9 42
3 47	4 20	6 39	6 20	22 16	2 51	6 27	25 46	13 20
3 21	4 18	6 47	6 51	22 17	2 42	7 56	25 30	16 47
2 55	4 15	6 55	7 23	22 19	2 34	9 23	24 48	19 49

The LUNATIONS.

Full Moon the 4th day, at 25 minutes past 4 morning.

Last quarter the 10th day, at 11 minutes past 10 night.

New Moon the 18th day, at 39 minutes past 6 morning.

First quarter the 26th day, at 46 minutes past 10 night.

M	Sundays & other	☉	☉	☉'s	☉'s	☉ rises	☉	Clock
D	remarks days	rises	sets	declin.	declin.	& sets	South	aft. ☉
1		7 57	4 3	21 57	10 n 28	4 15	10 a 5	10 23
2		7 58	4 2	22 6	15 29	5 32	10 55	9 59
3	Advent Sunday	7 59	4 1	22 14	19 50	6 52	11 49	9 38
4		8 0	4 0	22 22	23 10	☉ rises	morn	9 10
5		8 1	3 59	22 30	25 5	5 a 7	0 48	8 48
6	Nicholas	8 2	3 58	22 37	25 21	6 9	1 50	8 20
7		8 3	3 57	22 43	23 53	7 25	2 52	7 51
8	Concept. V. M.	8 3	3 57	22 50	20 51	8 48	3 52	7 27
9		8 4	3 56	22 55	16 34	10 12	4 49	7 0
10	☉ Sun. in Adve.	8 5	3 55	23 1	11 23	11 35	5 42	6 23
11		8 5	3 55	23 5	5 42	morn	6 32	6 4
12		8 6	3 54	23 10	0 12	0 56	7 19	5 36
13	Lucy	8 6	3 54	23 14	5 59	2 15	8 6	5 7
14		8 7	3 53	23 17	11 25	3 32	8 52	4 38
15		8 7	3 53	23 20	16 15	4 51	9 40	4 9
16	Cant. T. c. OSap.	8 7	3 53	23 23	20 14	6 8	10 29	3 39
17	☉ Sun. in Advent	8 8	3 52	23 25	23 11	7 21	11 20	3 9
18	Oxford Ter. c.	8 8	3 52	23 26	24 56	☉ sets	0 a 11	2 39
19		8 8	3 52	23 27	25 26	4 a 41	1 3	2 9
20	Ember Week	8 8	3 52	23 28	24 40	5 40	1 54	1 39
21	St. Thomas	Shor. d.	3 52	23 28	22 48	6 45	2 43	1 9
22		8 8	3 52	23 28	19 55	7 54	3 29	0 39
23		8 8	3 52	23 27	16 15	9 2	4 13	0 9
24	☉ Sun. in Adve.	8 8	3 52	23 26	11 57	10 11	4 5	ob. 21
25	Christmas Day	8 7	3 53	23 24	7 12	11 19	5 36	0 51
26	St. Stephen	8 7	3 53	23 22	2 7	morn	6 17	1 21
27	St. John	8 7	3 53	23 19	3 n 0	0 29	6 58	1 51
28	Innocents	8 6	3 54	23 16	8 26	1 39	7 42	2 20
29		8 6	3 54	23 12	13 30	2 53	8 28	2 49
30	[Silvester	8 6	3 54	23 8	18 7	4 10	9 20	3 18
31	☉ Sun. af. Chri.	8 5	3 55	23 3	21 50	5 21	10 16	3 47
M	Day	Long.	Helioc.	Helioc.	Helioc.	Helioc.	Helioc.	H
D	decreas.	of day	long. ♀	long. ♂	long. ☉	long. ♀	long. ♂	rises
1	8 28	8 6	7 25 30	19 54	7 44	9 11 52	6 55	3 7 14
7	8 40	7 54	7 44 20	27 10	28 15	57 16	23 19	44 5 37
13	8 46	7 48	7 57 21	0 13	13 22	4 25 58	6 13 32	5 12
19	8 50	7 44	8 11 21	3 15	58 28	11 58	34 24	25 4 47
25	oinc 21	7 46	8 24 22	6 18	45 49	18 15	10 14 18	4 22

1797.

December.

31

M	Daylig.	Daylig.	Durat.	Pl.	D's	h's	u's	δ's	♀'s	♂'s
D	begins	ends	twilig.	node	latitude	latitude	latitude	latitude	latitude	latitude
1	5 54	6 6	2 3	13 II 31	0 8 41	1 8 28	0 11 52	2 5 29	0 5 40	
7	5 57	6 3	2 6	13 12	0 4 1	1 26	0 50	2 23	1 15	
13	5 59	6 1	2 7	12 53	0 4 1	1 24	0 47	2 13	1 44	
19	6 1	5 59	2 7	12 33	0 40	1 22	0 45	1 58	2 3	
25	6 1	5 59	2 6	12 14	0 40	1 20	0 42	1 37	2 11	

M	☉'s	☽'s	☽'s	h's	u's	δ's	♀'s	♂'s
D	longitude	long.	latitude	long.	long.	long.	long.	long.
1	9 51	47	58 56	3 14	10 54 2	10 19	24 25	7 44
2	10 52	41	19 18	2 10	10 38	10 9	0 58	25 31
A	11 53	36	3 II 1	0 56	10 34	9 59	1 36	26 43
4	12 54	32	17 2	0 n 20	10 30	9 59	2 15	27 51
5	13 55	30	10 19	1 38	10 26	9 D 59	2 53	29 0 14

6	14 56	28	15 40	2 50	10 22	9 59	3 32	0 11 52
7	15 57	27	0 17	3 52	10 17	0 0	4 11	1 17
8	16 58	27	14 48	4 39	10 13	10 0	4 50	2 25
9	17 59	29	29 12	5 8	10 9	10 0	5 29	3 33
A	19 0	32	13 12	5 17	10 5	10 0	6 8	4 40
11	20 1	35	27 31	5 8	10 0	10 2	6 47	5 48
12	21 2	41	11 21	4 41	9 56	10 4	7 26	6 56
13	22 3	47	24 58	3 58	9 51	10 6	8 5	8 32
14	23 4	54	8 12	3 8	9 47	10 9	8 44	9 10
15	24 6	2	21 30	1 59	9 42	10 11	9 23	10 17

16	25 7	11	4 27	0 56	9 38	10 14	10 1	11 24
A	26 8	20	17 11	0 8 26	9 33	10 17	10 40	12 21
18	27 9	30	29 43	1 29	9 28	10 19	11 19	13 38
19	28 10	41	12 13	2 31	9 23	10 22	11 58	14 44
20	29 11	51	24 14	3 26	9 18	10 25	12 37	15 50
21	0 13	2	6 15	4 12	9 13	10 28	13 16	16 55
22	1 14	14	18 10	4 45	9 8	10 32	13 55	18 1
23	2 15	25	0 2	5 7	9 3	10 36	14 34	19 6
A	3 16	36	11 53	5 15	8 59	10 41	15 13	20 11
25	4 17	47	23 49	5 10	8 55	10 45	15 52	21 15

26	5 18	58	5 53	4 51	8 49	10 40	16 31	22 19
27	6 20	4	18 11	4 18	8 44	10 50	17 10	23 22
28	7 21	20	0 47	3 35	8 35	10 58	17 49	24 25
29	8 22	30	13 45	2 36	8 34	11 2	18 28	25 29
30	9 23	40	27 8	1 28	8 20	11 7	19 7	26 32
31	10 24	49	10 11	0 12	8 20	11 12	20 46	27 35

M	☽'s	♀'s	♂'s	h's	u's	δ's	♀'s	♂'s
D	sets	rises	sets	declin.	declin.	declin.	declin.	declin.
1	2 m 26	4 m 12	7 4	3 2 53	22 21	2 27	10 8 47	23 2 42
7	2 1	4 8	7 17	3 52	22 23	2 30	12 9 22	23 13 24
13	1 36	4 4	7 29	3 59	22 25	2 36	13 28	20 25 25
19	1 11	4 0	7 42	4 22	22 27	2 46	14 44	18 19 25
25	0 46	3 55	7 55	4 33	22 26	2 59	15 56	15 58 24

Dates		Heliocentric				Geocentric				Declin.	South.
Months	Days	Longitude	Latitude	Longitude	Latitude	Longitude	Latitude	Longitude	Latitude		
January	1	10 39	0 46	12 51	0 47	7 28	16 4				
	11	10 16	0 46	12 41	0 48	7 32	15 20				
	21	10 24	0 46	12 2	0 48	7 39	14 16				
February	1	10 33	0 46	12 3	0 48	7 48	13 50				
	11	10 41	0 46	11 39	0 48	7 57	13 9				
	21	10 49	0 46	11 14	0 49	8 7	12 29				
March	1	10 55	0 46	10 53	0 49	8 15	11 57				
	11	11 3	0 46	10 27	0 49	8 25	11 19				
	21	11 10	0 46	10 2	0 49	8 34	10 44				
April	1	11 19	0 46	9 37	0 48	8 43	9 59				
	11	11 27	0 46	9 18	0 48	8 50	9 22				
	21	11 35	0 46	9 3	0 48	8 55	8 44				
May	1	11 42	0 46	8 53	0 47	8 59	8 6				
	11	11 50	0 46	8 48	0 47	9 0	7 27				
	21	11 58	0 46	8 48	0 47	9 0	6 47				
June	1	12 7	0 46	8 55	0 46	8 57	6 3				
	11	12 15	0 46	9 7	0 46	8 52	5 21				
	21	12 22	0 46	9 23	0 45	8 46	4 42				
July	1	12 30	0 46	9 44	0 45	8 37	4 2				
	11	12 38	0 46	10 9	0 45	8 28	3 22				
	21	12 46	0 46	10 38	0 44	8 16	2 44				
August	1	12 54	0 46	11 14	0 44	8 3	2 3				
	11	13 2	0 46	11 49	0 44	7 49	1 27				
	21	13 10	0 46	12 25	0 44	7 35	0 52				
September	1	13 19	0 46	13 6	0 44	7 19	0 15				
	11	13 27	0 46	13 44	0 44	7 5	23 38				
	21	13 34	0 46	14 21	0 44	6 50	23 4				
October	1	13 42	0 46	14 58	0 44	6 36	22 30				
	11	13 50	0 46	15 32	0 44	6 23	21 56				
	21	13 58	0 46	16 4	0 44	6 11	21 20				
November	1	14 6	0 46	16 36	0 45	5 59	20 40				
	11	14 14	0 46	17 0	0 45	5 50	20 1				
	21	14 22	0 46	17 20	0 46	5 42	19 21				
December	1	14 30	0 46	17 34	0 46	5 37	18 39				
	11	14 38	0 46	17 44	0 46	5 34	17 56				
	21	14 46	0 46	17 47	0 47	5 33	17 11				

Time of High-Water at LONDON in the morning and afternoon of every day in the year.

Mo. Days	JANUARY				FEBRUARY				MARCH				APRIL				Mo. Days
	morn.		aftern.		morn.		aftern.		morn.		aftern.		morn.		aftern.		
	h	m	h	m	h	m	h	m	h	m	h	m	h	m	h	m	
1	3	56	4	11	4	31	4	47	3	39	3	53	4	29	4	51	1
2	4	28	4	46	5	3	5	22	4	8	4	24	5	13	5	36	2
3	5	3	5	20	5	42	6	3	4	42	5	1	6	5	6	35	3
4	5	38	5	5	6	27	6	53	5	21	5	42	7	8	7	41	4
5	6	21	6	45	7	26	7	52	6	8	6	36	8	18	8	5	5
6	7	9	7	34	8	28	9	6	7	8	7	41	9	36	10	16	6
7	8	4	8	34	9	45	10	25	8	18	8	57	10	52	11	27	7
8	9	7	9	4	11	5	11	46	9	37	10	18			0	1	8
9	10	17	10	53			0	22	10	57	11	35	0	30	0	57	9
10	11	20			0	57	0	30			0	10	1	23	1	48	10
11	0	9	0	44	2	1	2	38	0	44	1	23	2	12	2	33	11
12	1	18	1	51	2	53	3	13	1	42	2	9	2	53	3	10	12
13	2	23	2	48	3	30	3	47	2	35	2	53	3	26	3	41	13
14	3	11	3	31	4	2	4	19	3	11	3	27	3	56	4	13	14
15	3	50	4	9	4	37	4	55	3	43	3	58	4	31	4	49	15
16	4	28	4	47	5	13	5	32	4	12	4	30	5	8	5	29	16
17	5	6	5	26	5	53	6	17	4	49	5	7	5	51	6	17	17
18	5	47	6	9	6	42	7	7	5	26	5	49	6	44	7	11	18
19	6	33	6	57	7	33	8	3	6	13	6	40	7	38	8	8	19
20	7	21	7	47	8	34	9	6	7	7	7	36	8	4	9	12	20
21	8	15	8	45	9	39	10	11	8	6	8	37	9	43	10	13	21
22	9	15	9	46	10	43	11	15	9	9	9	42	10	43	11	11	22
23	10	17	10	48	11	46			10	15	10	46	11	39			23
24	11	19	1	49	0	15	0	42	11	16	11	45	0	5	0	31	24
25			0	19	1	7	1	31			0	14	0	56	1	19	25
26	1	46	1	12	1	55	2	18	0	39	1	3	1	43	2	7	26
27	1	37	2	1	2	37	2	55	1	27	1	49	2	30	2	52	27
28	2	23	2	45	3	11	3	25	2	12	2	35	3	11	3	28	28
29	2	1	3	17					2	52	3	8	3	46	4	3	29
30	3	33	3	46					3	24	3	39	4	25	4	47	30
31	4	1	4	16					3	54	4	9					31

This Table may serve the following Places, by adding

	h	m
For Tinmouth Haven, Hartle-pool, and Amsterdam	0	30
Brest	—	1
Scilly	—	1
Mount's Bay	—	1
Bridlington Pier and Humber	—	2

Time of High-Water at LONDON in the morning and afternoon of every day in the year.

M. Days	MAY				JUNE				JULY				AUGUST				No. Days
	morn.		aftern.		morn.		aftern.		morn.		aftern.		morn.		aftern.		
	h	m	h	m	h	m	h	m	h	m	h	m	h	m	h	m	
1	5	11	5	3	6	54	7	23	7	10	7	31	8	28	8	58	1
2	6	6	6	37	7	52	8	22	8	4	8	38	9	31	10	5	2
3	7	10	7	43	8	55	9	27	9	10	9	41	10	37	11	9	3
4	8	17	8	53	9	57	10	27	10	11	10	40	11	40			4
5	9	28	10	3	10	57	11	26	11	11	11	42	0	11	0	40	5
6	10	35	11	0	11	54					0	11	1	6	1	30	6
7	11	3			0	21	0	47	0	39	1	4	1	55	2	11	7
8	0	7	0	32	1	11	1	3	1	27	1	55	2	40	2	57	8
9	0	56	1	21	2	2	2	25	2	22	2	42	3	12	3	27	9
10	1	45	2	9	2	47	3		3	1	3	17	3	41	3	54	10
11	2	32	2	51	3	22	3	38	3	32	3	47	4	6	4	22	11
12	3	8	3	2	3	57	4	10	4	1	4	17	4	39	4	55	12
13	3	41	3	57	4	27	4	45	4	33	4	50	5	10	5	28	13
14	4	12	4	31	5	3	5	22	5	6	5	23	5	48	6	12	14
15	4	51	5	10	5	40	6	1	5	41	6	2	6	37	7	4	15
16	5	30	5	52	6	24	6	46	6	23	6	46	7	33	8	7	16
17	6	16	6	41	7	10	7	34	7	10	7	37	8	42	9	17	17
18	7	7	7	33	8	0	8	27	8	4	8	36	10	3	10	43	18
19	8	0	8	27	8	55	9	25	9	9	9	43	11	25			19
20	8	55	9	26	9	57	10	27	10	21	10	58	0	2	0	39	20
21	9	56	10	22	10	59	11	32	11	37			1	12	1	45	21
22	10	51	11	20			0	6	0	12	0	45	2	14	2	42	22
23	11	50			0	39	1	11	1	21	1	57	3	3	3	21	23
24	0	17	0	44	1	42	2	13	2	25	2	54	3	38	3	54	24
25	1	11	1	38	2	40	3	6	3	15	3	34	4	11	4	28	25
26	2	6	2	34	3	28	3	47	4	52	4	9	4	46	5	6	26
27	2	56	3	17	4	8	4	28	4	29	4	49	5	26	5	46	27
28	3	37	3	56	4	5	5	12	5	7	5	27	6	10	6	35	28
29	4	19	4	42	5	35	5	58	5	49	6	13	7	2	7	29	29
30	5	6	5	29	6	23	6	49	6	38	7	3	8	0	8	32	30
31	5	57	6	26					7	30	7	58	9	6	0	41	31

Adding				h	m
For Fowey, Loo and Plymouth	—	—	—	3	10
Dartmouth, Harborough and Hull	—	—	—	3	30
Torbay and Tinmouth	—	—	—	3	40
Exmouth, Topsham and Lyme	—	—	—	3	50
Bristol and Weymouth	—	—	—	4	20
Bridgewater and Texel	—	—	—	4	40
Portland and Hartlew	—	—	—	5	50

Time of High-Water at LONDON in the morning and afternoon of every day in the year.

Mo. Days	SEPTEMBER		OCTOBER				NOVEMBER				DECEMBER				Mo. Days
	morn. h	aftern. h m	morn. h m	aftern. h m	morn. h m	aftern. h m	morn. h m	aftern. h m	morn. h m	aftern. h m	morn. h m	aftern. h m	morn. h m	aftern. h m	
1	10 14	10 47	10 54	11 25				0 0	11 58						1
2	11 19	11 50	11 52		0 25	0 50		0 25	0 52						2
3		0 17	0 17	0 41	1 13	1 37		1 13	1 46						3
4	0 43	1 8	1 4	1 26	1 59	2 22		1 59	2 38						4
5	1 32	1 55	1 48	2 10	2 44	3 2		2 44	3 23						5
6	2 17	2 36	2 31	2 48	3 20	3 37		3 20	3 44						6
7	2 53	3 8	3 4	3 19	3 54	4 14		3 54	4 24						7
8	3 22	3 36	3 34	3 49	4 36	4 58		4 36	5 10						8
9	3 49	4 3	4 4	4 22	5 22	5 50		5 22	6 0						9
10	4 17	4 35	4 43	5 4	6 19	6 50		6 19	6 56						10
11	4 53	5 12	5 26	5 53	7 21	7 54		7 21	7 53						11
12	5 32	5 57	6 23	6 55	8 30	9 4		8 30	8 53						12
13	6 24	6 54	7 27	8 4	9 39	10 12		9 39	9 57						13
14	7 25	8 1		44 9 23	10 44	11 15		10 44	10 56						14
15	8 40	9 21	10 2	10 38	11 46			11 46	11 57						15
16	10 3	10 43	11 12	11 46	0 13	0 39		0 13	0 25						16
17	11 22	11 59		0 17	1 5	1 31		1 5	1 18						17
18		0 33	0 45	1 11	1 56	2 21		1 56	2 9						18
19	1 3	1 32	1 38	2 3	2 42	3 2		2 42	2 53						19
20	2 0	2 27	2 26	2 48	3 19	3 35		3 19	3 20						20
21	2 47	3 6	3 6	3 23	3 52	4 8		3 52	4 1						21
22	3 23	3 38	3 39	3 54	4 28	4 48		4 28	4 34						22
23	3 54	4 9	4 12	4 30	5 8	5 27		5 8	5 9						23
24	4 28	4 47	4 50	5 10	5 50	6 13		5 50	5 46						24
25	5 7	5 27	5 33	5 56	6 37	7 2		6 37	6 28						25
26	5 51	6 16	6 22	6 49	7 26	7 50		7 26	7 12						26
27	6 44	7 12	7 17	7 44	8 17	8 44		8 17	8 0						27
28	7 42	8 12	8 14	8 44	9 12	9 41		9 12	8 55						28
29	8 45	9 18	9 14	9 45	10 8	10 35		10 8	9 54						29
30	9 50	10 22	10 14	10 41	11 3	11 31		11 3	10 58						30
31			11 8	11 35					0						31

Subtracting

h m

For Leigh, Maes, and Gouries Gut	—	—	—	—	0	5
Gravefend, Rochester, and Rammekins	—	—	—	—	1	20
Buoy of the Nore and Flushing	—	—	—	—	1	30
Portsmouth, Ostend, Shoe-Bacon, and Red-Sand	—	—	—	—	2	0
Harwich, Dover, Spithead, and Calais	—	—	—	—	3	0
Gunfleet, Hastings, Shoreham, Orfordness, and Dieppe	—	—	—	—	4	0
Yarmouth Pier and Needle	—	—	—	—	4	40
St. Helen's and Havre-de-Grace	—	—	—	—	5	10

The Eclipses of Jupiter's

JANUARY	FEBRUARY	MARCH	APRIL
Emerfions	Emerfions		Immerfions
d h m s	d h m s		d h m s
1 3 38 5	2 0 9 1	The eclipses of Jupiter's Satellites are not vifible this Month, Jupi- ter being too near the Sun.	15 11 50 3
2 22 6 14	3 18 37 43		17 6 19 3
4 15 34 24	5 13 6 27		19 0 48 4
6 11 2 35	7 7 35 14		20 19 17 1
8* 5 30 48	9 2 4 3		22 13 45 59
9 23 59 3	10 20 32 55		24 8 14 53
11 18 27 20	12 15 1 49		26 2 43 45
13 12 55 37			27 21 12 30
15* 7 23 57			29 15 41 26
17 1 52 19			
18 20 20 41			
20 14 49 5			
22 9 17 31			
24 3 46 0			
25 22 14 32			
27 16 43 5			
29 11 11 42			
31* 5 40 20			
MAY	JUNE	JULY	AUGUST
Immerfions	Immerfions	Immerfions	Immerfions
d h m s	d h m s	d h m s	d h m s
1 10 10 12	2 6 42 18	2 8 39 36	1 10 40 31
3 4 38 58	4 1 10 24	4 3 7 42	3 5 9 4
4 23 7 38	5 19 38 30	5 21 35 48	4 23 37 40
6 17 36 21	7 14 6 42	7 16 3 56	6 18 6 16
8 12 4 58	9 8 34 49	9 10 32 7	8* 12 35 0
10 6 33 31	11 3 2 58	11 5 0 16	10 7 3 41
12 1 2 8	12 21 30 58	12 23 28 27	12 1 32 23
13 19 30 39	14 15 59 4	14 17 56 41	13 20 1 11
15 13 59 9	16 10 27 6	16* 12 24 56	15* 14 29 56
17 8 27 35	18 4 55 11	18 6 53 12	17 8 58 48
19 2 56 2	19 23 23 12	20 1 21 29	19 3 27 39
20 21 24 23	21 17 51 17	21 19 49 50	20 21 56 32
22 15 52 47	23 12 19 17	23* 14 18 10	22 16 25 26
24 10 21 5	25 6 47 17	25 8 46 33	24* 10 54 25
26 4 49 24	27 1 15 24	27 3 14 59	26 5 23 18
27 23 17 38	28 19 43 31	28 21 43 26	27 23 52 21
29 17 45 55	30* 14 11 27	30 16 11 57	29 18 21 21
31 12 14 5			31* 12 50 26

first Satellite for the Year 1797.

SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
Immersion	Immersion	Emergence	Emergence
d h m s	d h m s	d h m s	d h m s
2 7 19 27	2* 9 35 29	1* 13 58 34	1 16 3 19
4 1 48 31	4 4 4 40	3* 8 27 20	3* 10 31 33
5 20 17 39	5 22 33 52	5 2 56 6	5* 4 59 45
7* 14 46 46	Emergence	6 21 24 49	6 23 27 56
9* 9 15 59	7 19 12 30	8 15 53 32	8 17 56 7
11 3 45 4	9* 13 41 41	10* 10 22 10	10* 12 24 13
12 22 14 17	11* 8 10 46	12 4 50 49	12* 6 52 22
4* 16 43 27	13 2 39 55	13 23 19 22	14 1 20 26
16* 11 12 39	14 21 9 0	15 17 47 56	15 19 48 34
18 5 41 49	16* 15 38 6	17 12 16 27	17 14 16 36
20 0 11 4	18* 10 7 7	19* 6 44 57	19* 8 44 45
21 18 40 14	20 4 36 9	21 1 13 22	21 3 12 50
23* 13 9 28	21 23 5 8	22 19 41 48	22 21 40 56
25* 7 38 39	23 17 34 8	24 14 10 8	24 16 9 0
27 2 7 55	25* 12 3 3	26* 8 33 27	26* 10 37 4
28 20 37 5	27* 6 32 2	28 3 6 47	28* 5 5 15
30* 15 6 15	29 1 0 52	29 21 35 3	29 23 33 23
	30 19 29 40		31 18 1 32

The Times of the Eclipses contained in this Table are adapted to the Meridian of the Royal Observatory at Greenwich, and afford an excellent Method to discover the Longitude, or Difference of Meridians, between that and any other Place; which I shall illustrate by an EXAMPLE;

Suppose on the 25th Day of September of this Year, the Time of the Immersion of Jupiter's first Satellite be observed (by a Telescope) in an unknown Meridian, to happen at 9 h. 26 min. 59 sec.; I find by the Table, that the Time of this Immersion will happen at the British Observatory, at 7 h. 38 min. 39 sec. the same day: The Difference of the Times is 1 hour 48 min. 20 sec. which being converted into Degrees and Minutes of the Equator, will make 27 deg. 5 min. the Longitude of the Place of Observation, to the East, because the Time is more than that at the British Observatory.

N. B. Those marked with an Asterisk are visible at Greenwich.

Speculum Phænomenorum

JANUARY	FEBRUARY	MARCH
2 ♂ ☾ ♄ 22h. 3 ♂ ☾ ♂ 18h. 10 ♂ ☾ ♄ 12h. 12 ☾ in perige 18 ☉ in ☿ 23h. 32m. 24 ♂ ☾ ♄ 17h. 25 ☾ in apoge 26 ☿ in ☿ 27 ☿ elong. max. 29 ♂ ☾ ☿ 5h. 30 ♂ ☾ ♄ 14h. 31 ☿ in aphelion	1 ♂ ☾ ♂ 15h. 2 ☿ stationary 3 ♂ in ☿ 6 ♂ ☾ ♄ 20h. 8 ♀ in ☿ 10 ☾ in perige 12 ♂ ☉ ☿ 2h. 17 ☉ in ♄ 14h. 18m. 22 ☾ in apoge 24 ♂ ☾ ♀ 4h. 24 ♂ ☾ ☿ 10h. 25 ☿ stationary 27 ♂ ☾ ♄ 10h. 28 ♂ ☉ ☿ 16h. 30 ♄ stationary	2 ♂ ☾ ♂ 11h. 5 ☿ in ☿ 6 ♂ ☾ ♄ 2h. 10 ☿ elong. max. 10 ☾ in perige 10 ☐ ☉ ♄ 19h. 15 ♂ ☉ ☿ 15h. 16 ☿ in aphelion 16 ☿ in aphelion 19 ☉ in ♄ 14h. 39m. 22 ☾ in apoge 26 ♂ ☾ ☿ 0h. 26 ♂ ☾ ♀ 10h. 27 ♂ ☾ ♄ 5h. 31 ♂ ☾ ♂ 4h.
APRIL	MAY	JUNE
2 ♂ ☾ ♄ 10h. 6 ☾ in perige 18 ☾ in apoge 19 ☉ in ☿ 3h. 16m. 22 ♂ ☉ ☿ 9h. 24 ♂ ☾ ♄ 2h. 24 ☿ in ☿ 25 ♂ ☾ ♀ 18h. 26 ♂ ☾ ☿ 20h. 28 ♂ ☾ ♂ 21h. 29 ♂ ☾ ♄ 20h. 29 ☿ in perihelion	1 ☾ in perige 16 ☿ stationary 16 ☾ in apoge 20 ☉ in ♄ 3h. 46m. 21 ♂ ☾ ♄ 22h. 22 ☿ elong. max. 25 ♂ ☾ ♀ 19h. 27 ♂ ☾ ♄ 10h. 27 ♂ ☾ ☿ 11h. 27 ♂ ☾ ♂ 13h. 28 ♂ ☉ ♀ 13h. 28 ☾ in perige 29 ☐ ☉ ☿ 10h.	1 ☿ in ☿ 2 ♀ in ☿ 3 ☿ stationary 9 ☾ eclips. invisible 12 ☿ in aphelion 13 ☾ in apoge 13 ♄ in perihelion 16 ♂ ☉ ☿ 8h. 18 ♂ ☾ ♄ 15h. 20 ☉ in ☿ 12h. 29m. 22 ♂ ☉ ♄ 0h. 23 ♂ ☾ ☿ 17h. 24 ♂ ☾ ♄ 2h. 24 ♂ ☾ ♀ 17h. 24 ☉ eclipsed visible 25 ♂ ☾ ♂ 5h. 25 ☾ in perige 27 ☿ stationary 30 ☉ in aphelion

ad Annum 1797.

JULY

6	♀ in perihelion
9	♂ elong. max.
9	☐ ☉ 24 23h.
10	☾ in apoge
16	♂ ☾ 24 5h.
2	♂ ☾ ♀ 18h.
21	☉ in ♍ 23h. 21m.
21	♂ in ☿
22	♂ ☾ ☿ 11h.
23	♂ ☾ ☿ 19h.
24	♂ ☾ ♀ 16h.
24	☾ in perige
26	♂ in perihelion

AUGUST

4	♂ ☉ ☿ 22h.
6	☾ in apoge
8	24 stationary
9	♂ ☉ ♂ 10h.
12	♂ ☾ 24 13h.
18	♂ ☾ ♀ 9h.
21	♂ ☾ ♂ 12h.
21	☾ in perige
22	☉ in ♍ 5h. 45m.
22	♂ ☾ ☿ 22h.
23	♂ ☾ ♀ 11h.
28	24 in perihelion
28	♂ in ☿

SEPTEMBER

3	☾ in apoge
5	♂ ☉ ♄ 1h.
7	♂ in aphelion
8	♂ ☾ 24 15h.
12	♂ in aphelion
14	♂ ☾ ♀ 21h.
18	☾ in perige
19	♂ ☾ ♂ 3h.
19	♂ elong. max.
21	♀ in ☿
22	♂ ☾ ☿ 1h.
22	☉ in ♍ 2h. 14m.
22	♂ ☾ ♀ 10h.
30	☾ in apoge

OCTOBER

1	♂ stationary
3	☐ ☉ ♀ 23h.
5	♂ ☾ 24 16h.
7	♂ ☉ ♂ 5h.
7	♂ ☉ 24 5h.
12	♂ ☾ ♀ 5h.
13	♂ ☉ ☿ 2h.
16	☾ in perige
17	♂ ☾ ♂ 18h.
17	♂ in ☿
18	♂ ☾ ☿ 17h.
22	☉ in ♍ 10h 14m.
22	♂ ☾ ♀ 16h.
22	♂ in perihelion
22	♂ stationary
23	♂ stationary
27	♀ in aphelion
28	☾ in apoge
29	♂ elong. max.

NOVEMBER

1	♂ ☾ 24 18h.
8	♂ ☾ ♀ 10h.
11	☾ in perige
15	♂ ☾ ♂ 9h.
17	♂ ☾ ☿ 8h.
21	☉ in ♍ 11h. 13m.
21	♂ ☾ ♀ 19h.
24	♂ in ☿
25	☾ in apoge
29	♂ ☾ 24 0h.

DECEMBER

4	♂ ☉ ☿ 19h.
4	☾ eclipsed visible
5	♂ ☾ ♀ 15h.
5	24 stationary
5	♂ in aphelion
7	☾ in perige
8	☐ ☉ ♄ 17h.
14	♂ ☾ ♂ 0h.
17	☉ eclips. invifible
18	♂ ☾ ☿ 11h.
20	☉ in ♍ 18h. 53m.
22	♂ ☾ ♀ 0h.
22	♄ stationary
22	☾ in apoge
26	♂ ☾ 24 10h.
29	♂ ☉ ♀ 4h.
30	☉ in perihelion
31	☐ ☉ 24 20h.

A Table of the Sun's semi-diurnal Arches, or Times

The Sun's Declination North.

Degr.	Lat. 49		Lat. 50		Lat. 51		Lat. 52		Lat. 53		Lat. 54	
	h	m	h	m	h	m	h	m	h	m	h	m
0	6	4	6	4	6	4	6	4	6	4	6	4
1	6	8	6	8	6	8	6	9	6	9	6	9
2	6	12	6	13	6	13	6	14	6	14	6	15
3	6	17	6	18	6	18	6	19	6	19	6	20
4	6	22	6	22	6	22	6	24	6	25	6	25
5	6	26	6	27	6	27	6	29	6	30	6	31
6	6	31	6	32	6	33	6	34	6	36	6	37
7	6	36	6	37	6	38	6	40	6	41	6	43
8	6	41	6	42	6	43	6	45	6	47	6	48
9	6	45	6	47	6	48	6	50	6	52	6	54
10	6	50	6	52	6	54	6	56	6	58	7	0
11	6	55	6	57	6	59	7	1	7	3	7	6
12	7	0	7	2	7	4	7	7	7	9	7	12
13	7	5	7	7	7	10	7	12	7	15	7	18
14	7	10	7	13	7	15	7	18	7	21	7	24
15	7	15	7	18	7	21	7	24	7	27	7	31
16	7	21	7	24	7	27	7	30	7	33	7	37
17	7	26	7	29	7	33	7	36	7	40	7	44
18	7	31	7	35	7	38	7	42	7	46	7	51
19	7	37	7	41	7	45	7	49	7	53	7	58
20	7	43	7	47	7	51	7	55	8	0	8	5
21	7	49	7	53	7	57	8	2	8	7	8	12
22	7	55	7	59	8	4	8	9	8	14	8	20
23	8	1	8	6	8	11	8	16	8	22	8	28
24	8	7	8	12	8	18	8	24	8	30	8	36

By these Tables the Times of the Sun's Rising and Setting may be found, in any Part of the Kingdom of *Great-Britain* or *Ireland*; after the following Manner: Where the Latitude of the Place is known, take the Sun's Declination out of the Table, on the Noon of the Day you desire to know the Time of his Rising and Setting; and with it, according as it is either North or South, enter these Tables in the

Left-

of his visible half Duration above the Horizon.

The Sun's Declination South.

Degt.	Lat. 49		Lat. 50		Lat. 51		Lat. 52		Lat. 53		Lat. 54	
	h	m	h	m	h	m	h	m	h	m	h	m
0	6	4	6	4	6	4	6	4	6	4	6	4
1	5	59	5	59	5	58	5	58	5	58	5	58
2	5	54	5	54	5	53	5	53	5	53	5	53
3	5	49	5	49	5	49	5	48	5	48	5	47
4	5	45	5	44	5	44	5	43	5	42	5	42
5	5	40	5	39	5	39	5	38	5	37	5	36
6	5	35	5	35	5	34	5	33	5	31	5	30
7	5	31	5	30	5	29	5	27	5	26	5	25
8	5	26	5	25	5	23	5	22	5	21	5	19
9	5	21	5	20	5	18	5	17	5	16	5	13
10	5	17	5	15	5	13	5	11	5	10	5	8
11	5	12	5	10	5	8	5	6	5	4	5	2
12	5	7	5	5	5	3	5	0	4	58	4	56
13	5	2	5	0	4	57	4	55	4	52	4	50
14	4	57	4	54	4	52	4	49	4	47	4	44
15	4	52	4	49	4	46	4	44	4	41	4	37
16	4	46	4	45	4	41	4	38	4	34	4	31
17	4	41	4	38	4	35	4	32	4	28	4	23
18	4	36	4	33	4	29	4	26	4	22	4	18
19	4	30	4	27	4	23	4	19	4	15	4	11
20	4	25	4	21	4	17	4	13	4	9	4	4
21	4	19	4	15	4	11	4	6	4	2	3	57
22	4	13	4	9	4	4	4	0	3	55	3	50
23	4	7	4	3	3	58	3	53	3	47	3	42
24	4	1	3	56	3	51	3	46	3	40	3	34

Left-hand Column, under the Word Degrees; then look for the Latitude of the Place in the Top of the Table; and in that Column, against the Sun's Declination, will be found the Time of his visible half Duration above the Horizon, or Time of his Setting, correct by Refraction; then subtract the Time of his Setting from 12 Hours, the Remainder will be the Time of his Rising; double the Time of his Setting, the

A Table of the Sun's semi-diurnal Arches, or Times

The Sun's Declination North.

Degr.	Lat. 55		Lat. 56		Lat. 57		Lat. 58		Lat. 59		Lat. 60	
	h	m	h	m	h	m	h	m	h	m	h	m
0	6	4	6	4	6	4	6	4	6	4	6	4
1	6	9	6	10	6	10	6	10	6	11	6	11
2	6	15	6	16	6	16	6	17	6	17	6	18
3	6	21	6	22	6	22	6	23	6	24	6	25
4	6	27	6	28	6	29	6	30	6	31	6	32
5	6	32	6	34	6	35	6	36	6	38	6	39
6	6	38	6	40	6	41	6	43	6	44	6	46
7	6	44	6	46	6	48	6	49	6	51	6	53
8	6	50	6	52	6	54	6	56	6	58	7	1
9	6	56	6	58	7	1	7	3	7	5	7	8
10	7	2	7	5	7	7	7	10	7	13	7	16
11	7	8	7	10	7	14	7	17	7	20	7	23
12	7	15	7	18	7	21	7	24	7	27	7	31
13	7	21	7	24	7	28	7	31	7	35	7	39
14	7	28	7	31	7	35	7	39	7	43	7	47
15	7	34	7	39	7	42	7	46	7	51	7	56
16	7	41	7	45	7	49	7	54	7	59	8	4
17	7	48	7	52	7	57	8	1	8	7	8	13
18	7	55	8	0	8	5	8	10	8	16	8	22
19	8	2	8	7	8	13	8	19	8	25	8	32
20	8	10	8	15	8	21	8	28	8	35	8	42
21	8	18	8	24	8	30	8	37	8	45	8	53
22	8	26	8	32	8	39	8	47	8	55	9	4
23	8	34	8	41	8	49	8	57	9	6	9	16
24	8	43	8	51	8	59	9	8	9	18	9	29

the Sum will be the Length of the Day ; and double the Time of his Rising, the Sum will be the Length of the Night. But if the Latitude of the Place, and Declination of the Sun, consist of Degrees and Minutes, then a small Allowance must be made for the Minutes in both Cases, which may be done by a Person of an ordinary Capacity by a mental Proportion only. Thus, to find the Time of the Sun's Rising and Setting at

of his visible half Duration above the Horizon.

The Sun's Declination South.

Degr.	Lat. 55	Lat. 56	Lat. 57	Lat. 58	Lat. 59	Lat. 60
	h m	h m	h m	h m	h m	h m
0	6 4	6 4	6 4	6 4	6 4	6 4
1	5 58	5 58	5 58	5 58	5 57	5 57
2	5 52	5 52	5 52	5 51	5 51	5 50
3	5 47	5 46	5 45	5 45	5 44	5 43
4	5 41	5 40	5 39	5 38	5 37	5 36
5	5 35	5 34	5 33	5 32	5 31	5 29
6	5 29	5 28	5 27	5 25	5 24	5 22
7	5 23	5 22	5 20	5 19	5 17	5 15
8	5 17	5 16	5 14	5 12	5 10	5 8
9	5 12	5 10	5 8	5 5	5 3	5 2
10	5 5	5 3	5 1	4 59	4 56	4 53
11	4 59	4 57	4 54	4 52	4 49	4 46
12	4 53	4 51	4 48	4 45	4 42	4 38
13	4 47	4 44	4 41	4 38	4 34	4 30
14	4 41	4 37	4 34	4 30	4 27	4 23
15	4 34	4 31	4 27	4 23	4 19	4 14
16	4 27	4 24	4 20	4 15	4 11	4 6
17	4 21	4 17	4 12	4 8	4 3	3 57
18	4 14	4 9	4 5	4 0	3 54	3 48
19	4 7	4 2	3 56	3 51	3 45	3 39
20	3 59	3 54	3 49	3 43	3 36	3 29
21	3 52	3 46	3 40	3 34	3 27	3 19
22	3 44	3 38	3 31	3 24	3 17	3 9
23	3 36	3 29	3 23	3 15	3 6	2 57
24	3 27	3 20	3 13	3 5	2 55	2 45

at Aberdeen in Scotland, on the Longest Day; the Latitude of that Place is accounted 57 Degr. 7 Min. North, and the Sun's Declination 23 Deg. 28 Min. likewise North. By these you will find by the Table, that 5 Min. for the Sun's Declination, and 1 Min. for the Latitude of the Place, are both, to be added to 8 Hours 49 Min. the Time belonging to 57 Degr. of Latitude and 23 Degr. of North Declination, and the Sum will be 8 Hours 55 Min. the Time of his apparent Setting at Aberdeen, on the longest Day, whose Complement to 12 Hours, viz. 3 Hours 5 Min. will be the Time of his Rising, &c.

A Table of the Sun's Right-Ascension in Time, the greatest

Deg.	♈			♉			♊			♋			♌			♍		
	h	m	s	h	m	s	h	m	s	h	m	s	h	m	s	h	m	s
0	0	0	0	1	51	37	3	51	15	6	0	0	8	8	45	10	8	23
1	0	3	40	1	55	27	3	55	25	6	4	22	8	12	54	10	12	12
2	0	7	20	1	59	17	3	59	36	6	8	43	8	17	3	10	16	0
3	0	11	0	2	3	8	4	3	48	6	13	5	8	21	11	10	19	48
4	0	14	41	2	6	59	4	8	0	6	17	26	8	25	19	10	23	35
5	0	18	21	2	10	51	4	12	13	6	21	48	8	29	26	10	27	22
6	0	22	2	2	14	44	4	16	26	6	26	9	8	33	31	10	31	8
7	0	25	42	2	18	37	4	20	40	6	30	30	8	37	37	10	34	54
8	0	29	23	2	22	31	4	24	55	6	34	51	8	41	41	10	38	40
9	0	33	4	2	26	25	4	29	10	6	39	11	8	45	45	10	42	25
10	0	36	45	2	30	20	4	33	26	6	43	31	8	49	48	10	46	9
11	0	40	26	2	34	16	4	37	42	6	47	51	8	53	51	10	49	53
12	0	44	8	2	38	13	4	41	59	6	52	11	8	57	52	10	53	37
13	0	47	50	2	42	10	4	46	16	6	56	31	9	1	53	10	57	20
14	0	51	32	2	46	8	4	50	34	7	0	50	9	5	53	11	1	3
15	0	55	14	2	50	7	4	54	52	7	5	8	9	9	53	11	4	46
16	0	58	5	2	54	7	4	59	10	7	9	26	9	13	52	11	8	28
17	1	2	40	2	58	7	5	3	29	7	13	44	9	17	50	11	12	10
18	1	6	23	3	2	8	5	7	49	7	18	1	9	21	47	11	15	52
19	1	10	7	3	6	9	5	12	9	7	22	18	9	25	44	11	19	34
20	1	13	51	3	10	12	5	16	29	7	26	34	9	29	40	11	23	15
21	1	17	35	3	14	15	5	20	49	7	30	50	9	33	35	11	26	56
22	1	21	20	3	18	19	5	25	9	7	35	5	9	37	29	11	30	37
23	1	25	6	3	22	23	5	29	30	7	39	20	9	41	23	11	34	18
24	1	28	52	3	26	29	5	33	51	7	43	34	9	45	16	11	37	58
25	1	32	38	3	30	35	5	38	12	7	47	47	9	49	9	11	41	39
26	1	36	25	3	34	41	5	42	34	7	52	0	9	53	1	11	45	19
27	1	40	12	3	38	49	5	46	55	7	56	12	9	56	52	11	49	0
28	1	44	0	3	42	57	5	51	17	8	0	24	10	0	43	11	52	40
29	1	47	48	3	47	6	5	55	38	8	4	35	10	4	33	11	56	20
30	1	51	37	3	51	15	6	0	0	8	8	45	10	8	23	12	0	0

The time of the southing or meridian transits of the fixed stars in pa. 46 may be found thus. On the noon of the day, preceding the night in which you want to know the time of the southing of any of those stars, find the Sun's place in the Ephemeris, and with it take out of the above table his right ascension in time; this you may do by inspection to a minute, which will be sufficient for your present purpose: Then from the right-ascension of the star in pa. 46, subtract the right-ascension of the Sun, the remainder will be the estimate time of the star's southing, and will not differ from the true time above 2 or 3 minutes at most, which may be near enough for ordinary uses. But when great exactness is required, reduce the Sun's place to this estimate time, and with it find in the above table his right ascension to seconds, which being subtracted from that of the star, the remainder will be the

Obliquity of the Ecliptic being $23^{\circ} 28'$.

Decl.	α			η			$\uparrow$			ν			μ			χ		
	h	m	s	h	m	s	h	m	s	h	m	s	h	m	s	h	m	s
0	12	0	0	13	51	37	15	51	15	18	0	0	20	8	45	22	8	23
1	12	3	40	13	55	27	15	55	25	18	4	22	20	12	54	22	12	12
2	12	7	20	13	59	17	15	59	36	18	8	43	20	17	9	22	16	0
3	12	11	0	14	3	8	16	3	48	18	13	5	20	21	11	22	19	48
4	12	14	41	14	6	59	16	7	0	18	17	26	20	25	19	22	23	35
5	12	18	21	14	10	51	16	12	13	18	21	48	20	29	26	22	27	22
6	12	22	2	14	14	44	16	16	26	18	26	9	20	33	31	22	31	8
7	12	25	42	14	18	37	16	20	40	18	30	30	20	37	37	22	34	54
8	12	29	23	14	22	31	16	24	55	18	34	51	20	41	41	22	38	40
9	12	33	4	14	26	25	16	29	10	18	39	11	20	45	45	22	42	25
10	12	36	45	14	30	20	16	33	26	18	43	31	20	49	48	22	46	9
11	12	40	26	14	34	16	16	37	42	18	47	51	20	53	51	22	49	53
12	12	44	8	14	38	13	16	41	59	18	52	11	20	57	52	22	53	37
13	12	47	50	14	42	10	16	46	16	18	56	31	21	1	53	22	57	20
14	12	51	32	14	46	8	16	50	34	19	0	50	21	5	53	23	1	3
15	12	55	14	14	50	7	16	54	52	19	5	8	21	9	53	23	4	46
16	12	58	57	14	54	7	16	59	10	19	9	26	21	13	52	23	8	28
17	13	2	40	14	58	7	17	3	29	19	13	44	21	17	50	23	12	10
18	13	6	23	15	2	8	17	7	49	19	18	1	21	21	47	23	15	52
19	13	10	7	15	6	9	17	12	9	19	22	18	21	25	44	23	19	34
20	13	13	51	15	10	12	17	16	29	19	26	34	21	29	40	23	23	15
21	13	17	35	15	14	15	17	20	49	19	30	50	21	33	35	23	26	56
22	13	21	20	15	18	19	17	25	9	19	35	5	21	37	29	23	30	37
23	13	25	6	15	22	23	17	29	30	19	39	20	21	41	23	23	34	18
24	13	28	52	15	26	29	17	33	51	19	43	34	21	45	16	23	37	58
25	13	32	38	15	30	35	17	38	12	19	47	47	21	49	9	23	41	39
26	13	36	25	15	34	41	17	42	34	19	52	0	21	53	1	23	45	19
27	13	40	12	15	38	49	17	46	55	19	56	12	21	56	52	23	49	0
28	13	44	0	15	42	57	17	51	17	20	0	24	22	0	43	23	52	40
29	13	47	48	15	47	6	17	55	38	20	4	35	22	4	33	23	56	20
30	13	51	37	15	51	15	18	0	0	20	8	45	22	8	23	24	0	0

the true time of the star's culminating or southing. And if from the time of the star's southing you subtract the semidiurnal arc belonging to it, the remainder will be the time of the star's rising; and being added to it, the sum will be the time of its setting.

Annexed is an Ex. of SIRIUS for Jan. 31, 1797.

☉'s place at noon $\approx 12^{\circ} 13'$		h	m	s
☉'s rt. asc. of Sirius	-	6	35	58
☉'s rt. asc. subtract	-	20	58	44
*'s estimate southing	-	9	37	14
☉'s rt. asc. at that time sub.	-	21	0	25
*'s true southing	-	9	35	33
Semid. arc sub. & add	-	4	36	55
*'s rising aftern.	-	4	59	38
*'s setting	-	14	12	28

A Table of the mean Right-Ascensions in time, Semidurnal-Arcs, Declinations, and Magnitudes of 40 remarkable fixed Stars, with their Names and Bayer's Literal Characters, for January 1, 1790.

Names of the Stars	Ch.	Rt. Asc.			Declination			Semid. Ar.			Ma.	
		h	m	s	°	'	"	h	m	s		
Pole star, Alruccabah -	α	0	48	57	88	11	34	n	fets	not	2	
Andromeda's girdle, Mirach -	β	0	57	48	34	29	47	n	10	7	32	2
Andromeda's left foot, Almach	γ	1	51	10	41	18	41	n	fets	not	2	
Ram's following horn -	α	1	55	18	22	27	43	n	8	9	35	2
Whale's jaw, Menkar -	α	2	51	19	3	15	11	n	6	19	48	2
Medusa's head, Algol - -	β	2	54	32	40	7	41	n	fets	not	2	
Perseus's right side, Algenib	α	3	9	26	49	7	6	n	fets	not	2	
Brightest of the 7 stars -	η	3	35	2	23	26	22	n	8	16	40	3
Bull's south eye, Aldebaran	α	4	23	51	16	4	19	n	7	28	51	1
Auriga's left shoulder, Capella	α	5	1	11	45	46	57	n	fets	not	1	
Orion's left foot, Rigel -	β	5	4	27	8	27	38	s	5	20	28	1
Bull's north horn - -	β	5	12	57	28	25	12	n	8	57	1	2
Orion's left shoulder, Bellatrix	γ	5	13	54	6	8	50	n	6	34	41	2
Orion's girdle - -	ϵ	5	25	32	1	21	22	s	5	56	42	2
Orion's right shoulder, Betelgeuse	α	5	43	46	7	21	2	n	6	40	58	1
In the great Dog's mouth, Sirius	α	6	35	58	16	25	8	s	4	36	55	1
Head of the 1st Twin, Castor	α	7	21	11	32	19	57	n	9	38	21	1
In the less Dog's thigh, Procyon	α	7	28	21	5	46	33	n	6	32	50	1
Head of the 2d Twin, Pollux	β	7	32	30	28	31	19	n	8	58	13	2
Hydra's heart, Alphard -	α	9	17	15	7	45	30	s	5	24	20	2
Lion's heart, Regulus -	α	9	57	11	12	58	43	n	7	11	28	1
Great Bear, Lower Pointer	β	10	49	4	57	30	19	n	fets	not	2	
Great Bear, Upper Pointer -	α	10	50	39	62	53	25	n	fets	not	2	
Lion's tail, Deneb - -	β	11	38	24	15	44	22	n	7	27	18	2
Great Bear, 1st in the tail, Aliath	ϵ	12	45	5	57	7	0	n	fets	not	2	
Virgins's spike - -	α	13	14	10	10	3	38	s	5	12	20	1
Dragon's tail - -	α	13	58	42	65	20	53	n	fets	not	2	
Bootes, Arcturus - -	α	14	6	11	20	20	20	n	7	55	26	1
Libra, Southern Scale - -	α	14	39	22	15	9	30	s	4	44	23	2
Libra, Northern Scale - -	β	15	5	47	8	36	4	s	5	19	57	2
Bright star in the North Crown	α	15	25	49	27	25	35	n	8	48	36	2
Scorpion's heart, Antares	α	16	16	35	25	56	54	s	3	34	6	1
Hercules's head, Raf. Algethi	α	17	5	7	14	38	4	n	7	20	41	2
Head of Serpentarius - -	α	17	25	8	12	43	20	n	7	9	50	2
Dragon's head, Rastaben -	γ	17	51	51	51	31	28	n	fets	not	2	
Bright star in the Harp, Lyra	α	18	29	45	38	35	39	n	fets	not	1	
Bright star in the Eagle, Atair	α	19	40	25	8	18	55	n	6	45	57	2
Mouth of south Fish, Fomalhaut	α	22	45	53	30	43	12	s	2	52	6	1
Pegasus's wing, Markab -	α	22	54	15	14	4	11	n	7	17	10	2
Andromeda's head - -	α	23	57	29	27	55	38	n	8	52	19	2

Table of the Longitudes, Latitudes, and Magnitudes of the most remarkable fixed Stars that the Moon can Eclipse, or make a near Appulse unto; exactly rectified to the beginning of the year 1790.

Con.	Cha.	Long.	Lat.	M _{ag.}	Con.	Cha.	Long.	Lat.	M _{ag.}
		° ' "	° ' "				° ' "	° ' "	
2	♏	♎ 11 13 11	2 9 44 n	4	12	♏	12 9 29	0 21 48 n	2
2	♏	14 36 25	1 5 37 n	4	12	♏	18 4 37	1 49 14 s	3
5	♏	16 56 25	0 13 11 s	4	γ	22 12 9	4 24 41 n	3	3
2	♏	♎ 17 54 44	1 48 7 n	4	π	24 26 33	4 2 52 n	4	4
2	♏	27 3 44	4 1 36 n	3	κ	24 49 47	0 1 1 n	4	4
2	γ	II 2 52 0	5 45 30 s	3	θ	26 56 12	3 29 24 n	4	4
0	ε	5 31 37	2 35 37 s	3	λ	27 32 46	0 6 53 n	4	4
1	α	6 51 20	5 29 2 s	1	♏	29 38 28	1 57 17 s	3	3
1	β	19 38 37	5 21 59 n	2	♏	♏ 0 0 35	5 26 15 s	3	3
8	♏	21 51 15	2 13 29 s	3	β	♏ 0 15 33	1 2 18 n	2	2
1	II	♏ 0 30 37	0 55 4 s	4	ν	1 42 50	1 39 52 n	4	4
1	μ	2 22 2	0 50 34 s	3	σ	4 52 13	4 0 23 s	4	4
2	γ	5 10 20	6 46 12 s	2	α	6 49 58	4 32 17 s	1	1
8	ε	7 0 30	2 2 28 n	3	τ	8 31 42	6 5 21 s	4	4
5	♏	15 35 29	0 12 19 s	3	♏	γ 28 20 3	6 56 48 s	3	3
1	β	20 19 34	6 40 4 n	1	μ	♏ 0 16 58	2 22 24 n	4	4
0	γ	♏ 4 36 51	3 10 22 n	4	λ	3 23 31	2 5 31 s	4	4
3	♏	5 47 9	0 4 13 n	4	φ	7 14 48	3 55 22 s	3	3
0	ε	18 43 23	3 1 57 s	4	σ	9 27 17	3 24 55 s	3	3
2	♏	21 19 38	3 46 1 s	4	τ	11 54 32	5 2 33 s	3	3
2	η	24 58 23	4 51 9 n	4	ο	12 3 36	0 53 36 n	3	3
2	α	26 54 49	0 27 27 n	1	π	13 19 21	1 28 7 n	4	4
8	ρ	♏ 3 27 25	0 8 29 n	4	β	♏ 1 6 55	4 36 46 n	3	3
2	τ	18 34 47	0 31 21 s	4	ε	17 16 0	4 57 31 s	4	4
0	υ	22 6 32	3 2 51 s	4	γ	18 50 53	2 32 6 s	4	4
2	♏	24 10 47	0 41 36 n	3	♏	20 36 5	2 33 40 s	3	3
6	ο	♏ 0 26 10	5 4 42 n	3	♏	25 47 17	2 3 47 s	4	4
3	η	1 54 16	1 22 24 n	3	θ	♏ 0 19 42	2 43 22 n	4	4
7	γ	7 14 41	2 48 57 n	3	λ	8 38 43	0 22 57 s	4	4
2	α	20 54 50	2 2 11 s	1	φ	14 12 39	1 2 8 s	4	4

This table shewing the mean longitudes of 60 stars to the beginning of the year 1790, their mean longitudes for any other time may be found if $50\frac{1}{2}$ seconds be added for each succeeding, and subtracted for each preceding year, and proportionably for a part of a year. Thus, to find the longitude of the first star ♏♏, or ♏ piscium, for Feb. 15, 1790, or 2 years and one eighth after the tabular time; here $2\frac{1}{8}$ times $50\frac{1}{2}$ sec. make $1^{\circ} 47'$, which being added to the tabular longitude, gives ♎ 11° 14' 58" for the longitude required at the given time.—The latitudes vary not.

The Latitudes and Longitudes of Ninety Places.

	Lat.	Long.		Lat.	Long.
Alexandria, Egypt	31 11 n	30 17 e	Isfahan	32 25 n	52 55 e
Amsterdam, Hol.	52 23 n	4 52 e	Land's end	59 6 n	5 10 e
Archangel, Ruf.	64 34 n	38 30 e	Leghorn	43 33 n	16 24 e
Athens	37 40 n	23 52 e	Leroff	52 38 n	1 51 e
Babelmandel	12 50 n	43 50 e	Leverpool	53 22 n	3 10 e
Batavia	6 12 s	106 45 e	Lima	12 1 s	76 50 w
Bengal	22 0 n	92 45 e	Lisbon	38 42 n	9 11 w
Berlin	52 33 n	13 26 e	Lizard	49 57 n	8 21 w
Bombay Isle	19 42 n	73 3 e	London	51 31 n	0 0 w
Boston, Amer.	42 25 n	70 37 w	Madras	13 8 n	80 0 e
Breslau	51 3 n	17 13 e	Madrid	40 25 n	3 43 w
Bress	48 23 n	4 30 w	Manilla	14 30 n	120 25 e
Bristol	51 28 n	2 30 w	Marseilles	43 18 n	5 21 e
Buenos Ayres	34 35 s	58 0 w	Mexico	19 54 n	100 5 e
Cadiz	36 31 n	6 7 w	Mississipi, mouth	29 0 n	89 17 w
Calais	50 58 n	1 51 e	Moscow	55 25 n	37 51 e
Cairo, Egypt	30 2 n	31 26 e	Naples	40 51 n	14 10 e
Cambridge	52 13 n	0 4 e	Newcastle	55 0 n	1 18 w
Canaria Islands	28 1 n	15 0 w	Oporto	40 53 n	8 35 w
Canton	23 8 n	113 2 e	Orkney I. northend	59 24 n	3 21 w
Cape of Goodhope	34 29 s	18 23 e	Oxford	51 45 n	1 10 w
Cape Horn	55 59 s	67 26 w	Paris	48 50 n	2 25 e
Carthegena	10 27 n	75 26 w	Pekin	39 55 n	116 21 e
Charles Town Am.	33 22 n	79 50 w	Petersburg	59 56 n	50 19 e
Constantinople	41 0 n	28 53 e	Philadelphia	39 57 n	75 18 w
Copenhagen	55 11 n	12 50 e	Plymouth	50 24 n	4 15 w
Corinth	37 30 n	25 0 e	Port Mahon	39 51 n	3 53 e
Corke	51 54 n	8 30 w	Port Royal, Jam.	17 40 n	76 37 w
Dantzic	54 22 n	18 36 e	Portsmouth	50 48 n	1 17 w
Dover	51 7 n	1 9 e	Prague	50 5 s	14 10 e
Dublin	53 20 n	6 35 w	Quebec	46 55 n	71 12 w
Edinburgh	55 58 n	3 3 w	Rome	41 54 n	12 32 e
Ferro, Ile	27 48 n	18 8 w	Sailly Isles	50 0 n	6 45 w
Finisterre, Cape	42 57 n	9 36 w	Smyrna	38 28 n	27 25 e
Genoa	44 25 n	8 41 e	Stockholm	59 22 n	18 12 e
Gibraltar	36 5 n	4 46 w	Syracuse	37 4 n	15 20 e
Glasgow	55 52 n	4 5 w	Tangier	35 55 n	5 45 w
Goa	15 31 n	73 50 e	Teneriff	28 16 n	16 32 w
Gottingen	51 33 n	9 58 e	Tunis	36 47 n	10 16 e
Greenwich	51 29 n	0 5 e	Turin	45 5 n	7 45 e
Hairut's Head.	79 55 n	12 0 e	Venice	45 27 n	12 24 e
Halifax, America	44 6 n	65 20 w	Verd, Cape	44 47 n	17 28 w
Havana	23 12 n	81 11 w	Vienna	48 11 n	16 23 e
Heiena, I. St.	15 55 s	5 49 w	Upsal	59 52 n	17 20 e
Jerusalem	31 50 n	35 25 e	Uraniberg	55 54 n	12 0 e

F I N I S.